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FIFTY-FIRST ANNUAL REPORT

OF THE

BOARD OF EDUCATION:

TOGETHER WITH THE

FIFTY-FIRST ANNUAL REPORT

OF THE

SECRETARY OF THE BOARD,

1886-87.



JANUARY, 1888.

BOSTON:
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
18 POST OFFICE SQUARE.
1888.

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STATE BOARD OF EDUCATION, 1888.

EX OFFICIO.

HIS EXCELLENCY OLIVER AMES, *Governor.*

HIS HONOR JOHN Q. A. BRACKETT, *Lieutenant-Governor.*

BY APPOINTMENT.

ABBY W. MAY,	Boston,	May 25, 1888.
MILTON B. WHITNEY,	Westfield,	May 25, 1889.
FRANCIS A. WALKER,	Boston,	May 25, 1890.
EDWARD C. CARRIGAN,	Boston,	May 25, 1891.
ELIJAH B. STODDARD,	Worcester,	May 25, 1892.
ALONZO A. MINER,	Boston,	May 25, 1893.
HORACE E. SCUDDER,	Cambridge,	May 25, 1894.
ADMIRAL P. STONE,	Springfield,	May 25, 1895.

SECRETARY.

JOHN W. DICKINSON, *Newton.*

ASSISTANT SECRETARY AND TREASURER.

C. B. TILLINGHAST, *Boston.*

AGENTS.

GEORGE A. WALTON,	West Newton.
GEORGE H. MARTIN,	Bridgewater.
JOHN T. PRINCE,	Waltham.
ANDREW W. EDSON,	Worcester.
HENRY T. BAILEY,	North Scituate.

ANNUAL REPORT

OF THE

BOARD OF EDUCATION.

ANNUAL REPORT.

The Board of Education, in compliance with the requirements of the statutes of the Commonwealth, respectfully presents to the Legislature its Fifty-first Annual Report.

In addition to the general work for the year, especial attention has been given to the subject of evening schools, and to the question of revising the statutory list of studies, both of which were referred to the Board by the last Legislature. In accordance with the resolves the result of its investigations will be given in special reports.

The Board has been frequently called upon to advise concerning local school interests in towns where public opinion was divided. The number of such cases is increasing from year to year, and the assistance rendered is always gratefully received, and in a majority of cases the advice given is followed.

The Legislature of 1885 passed a law requiring "special instruction to be given as to the effects of alcoholic drinks, stimulants and narcotics on the human system," "as a regular branch of study to all pupils in all schools, supported wholly or in part by public money, except special schools maintained solely for instruction in particular branches, such as drawing, mechanics, art, and like studies." That the Board might be fully informed respecting the working of this law, it was printed in full on the blank forms for school returns sent to the towns, and the question was asked, "Is this act duly observed in the schools of your town?" Returns from all the towns of the State bring answers; most of which are affirmative, a few say no, and a few others report only a partial compliance. From information gathered from all sources the Board feel

justified in saying that fair progress has been made during the year. The subject was presented at all the Teachers' Institutes held last year, and teachers grow more interested in this new study as they gain light on the best method of introducing it to their classes. The wish is frequently expressed for better text-books, especially for graded books. In some towns but one book is provided, and the teachers are expected to simplify it for the youngest class, and to amplify it for the most advanced, by knowledge gathered from outside sources. This is a great demand to make upon teachers already overburdened with their duties. It is not too much to expect that school committees will give their attention to this need of text-books for the use of their teachers; and either find among those already published such as are satisfactory or make known their need in some effective way. In many towns admirable work is done, and on the whole the state of things is encouraging; but there is yet much more to be done before the law is everywhere obeyed. That so many earnest committees and faithful teachers are alive to the importance of the study, and that the graduates of the Normal Schools are now fitted to teach it, is the best promise for the future.

The Board is preparing a course of studies for the ungraded schools. This work was undertaken at the request of those who needed the help which such a course would afford. When completed it will be printed for gratuitous circulation. In the nature of things this course of study cannot be perfectly adapted to the needs of all ungraded schools; but the Board confidently believes that it will be very valuable by way of suggestion and guidance. The preparation of it has involved much labor on the part of the Secretary and Agents. Their work is commended as exceedingly valuable.

The Normal Schools, which are in the especial charge of this Board, have been prosperous, as will appear from the reports of their respective Boards of Visitors. The classes in all have been larger during the past year than at any former time. They have also shown that improvement in age and fitness to enter upon their course of training which is to be expected from the better knowledge that prevails of the needs and the purposes of Normal training. One of the most important features of a Normal School is the opportunity it affords for practice in

teaching. Most of the Normal Schools of this State offer facilities for such practice. The Worcester School is in intimate relations with the schools of that city, and its pupils have the chance to teach in them by assignment of the city superintendent, and under the direction of skilled teachers. The Framingham School has an excellent training school of its own. The Bridgewater School, by arrangement with the town authorities, has the benefit of a school for observation; and at Salem the seniors have the advantage of daily practice with a class of children from a neighboring school. The Westfield School has no arrangement of this sort for the benefit of its pupils. This lack should not be suffered to continue, if there is any possible remedy. It is not so much a question of money expenditure, as of a knowledge how best to secure the co-operation of the town for this purpose. The Board has given much thought to the subject of training-schools, and hopes to reach at no distant day a satisfactory solution of the problems which they present. It asks such aid in the matter as the Legislature and all intelligent citizens may be able to give. It is obvious that students who have had the benefits of training-schools, assume the responsibilities of teachers well armed against failure; and it is known that superintendents and school committees in selecting teachers give great weight to these opportunities for practice in teaching. They well understand that no one thing gives greater power to the young teacher than the actual handling of classes of children under the oversight of experienced teachers, who are able to point out defects and their remedy, and justly to appreciate successful work. The Normal Schools last year graduated 233 young teachers, most of whom went directly to work in the schools of the Commonwealth, thus giving back to the State an immediate return for what she had so generously given to them.

The Visitors of the Framingham School report, as will be seen, that the appropriation of \$5,000 made by the last Legislature for repairing the school-house has not been used, and they give their reasons for the course pursued. The Board considers the decision to be a wise one. The building is unsound and is not large enough for the present size of the school, nor adapted to its uses. If honest, faithful and successful work is a test of merit, the Framingham School deserves, as well

as needs, a new building, and we earnestly hope that its semi-centennial anniversary may find the oldest Normal School in this country in a building which for thoroughness, simplicity and adaptation to its work shall be a model Normal School-house.

The Normal Art School is growing rapidly in numbers and reaching a higher standard of attainment. The new building is an inspiration to renewed efforts on the part of teachers and students, and the work goes on smoothly and easily in its spacious and convenient quarters.

The Board commends all the Normal Schools to the Legislature and the citizens of Massachusetts, as worthy of great confidence and most generous support.

The Board has appointed Mr. Henry T. Bailey Agent for the Promotion of Industrial Drawing, in place of Mr. Charles M. Carter, who resigned on account of ill-health. Mr. Bailey has already begun his work. There is great backwardness on the part of many towns in regard to this study. Whatever can be done by the Agent, and by work in the Teachers' Institutes, to produce a better state of things will be done. But all this will not avail without a greater readiness to comply with the law, on the part of those towns which have not already done so. The principal of the Normal Art School and the teachers of drawing in the Normal Schools are soon to meet the newly appointed Agent, for conference on this and other important matters connected with Industrial Drawing.

The most important duty of the Agents of the Board is to visit the schools of the State, and give such help as is practicable to committees and teachers, with a view to the improvement of the schools. This work was carried on without interruption, as far as possible, by Messrs. Walton and Prince; but the Board has to report with great regret that Mr. Martin has not yet been able to resume his share of it. The service of Mr. E. A. Hubbard, a former Agent, was secured for some months of the year. After diligent search a gentleman has been found — Mr. Andrew W. Edson — who combines a long experience in the supervision of schools with other qualifications, and who was willing to become Agent of the Board. Mr. Edson has been elected, and has begun his work.

The Agents are everywhere received as friends, by committees and teachers, and their efforts seem to be appreciated. Their encouragement and approval are much valued, and where criticism is called for they find it received in the same kind spirit in which it is always offered. It is, however, obvious that two or three gentlemen, working in so wide a field, can do little beyond friendly criticism and suggestion, to remedy the faults which are found in many of the schools of the State. For the best good of the poor and weak schools some more continuous influence and work are needful, and the Board has again to speak of what appears to be the best practicable remedy for the present state of things. It is to be found in skilled teaching and skilled supervision. It is almost invariably the case that when a competent superintendent is appointed, the schools at once improve; and the Board desires to express to the Legislature its most earnest conviction that the interests of education demand some legislation, by means of which the schools of the poorer towns shall be rescued and brought into the line of progress. Here it is largely a question of money; but to spend wisely for such a purpose brings an ample return. The Board has from time to time submitted plans for supervision made possible for the small and poor towns of the State; and will be ready to do so again, when such help is desired. But it is committed to no special plan. Feeling the need of action in the matter, and desiring to promote it in any way possible, the Board presents the following controlling conditions, in the belief that the way to meet the need may be found without interfering with local rights, and without imposing undue pecuniary burdens on any one.

The conditions are these: —

First. The State of Massachusetts undertakes to give to every child within her borders a good common-school education. The scope of this is well defined by statute, and comprises such a course of training as shall send forth the children furnished with a clear knowledge of the elementary English studies, able to use their minds in the experience of every-day life, and trained in morals and manners.

Second. In not a small number of our towns are schools so poor as to be hardly worthy to be counted as parts of the school

system of a rich and intelligent community. A visit to such schools shows that but few of the above-mentioned requirements are met. The salaries paid to teachers are too small to command those who have had much opportunity for gaining knowledge, or any training in the best methods of imparting what they know. Often these teachers are taken from some poorly equipped, ungraded school, where there is no attempt even at giving a full grammar course, and are put at once in charge of a goodly number of scholars, upon whom they must practice and try experiments, at the cost of the pupils. We often find the best spirit and most earnest endeavor on the part of these young, untrained teachers, and our sympathy is called out in their behalf. But a much deeper sympathy is demanded for the children in such schools. They are losing the precious time, all too short, of their school life, and they go out into the world to meet its varied problems, ignorant and untrained to a pitiable degree. Now, let a skilled supervisor take charge of such schools, and at once he sees how, by patient endeavor and oversight, he may make the best use of these young, willing, but inexperienced teachers. His whole time and strength are at the service of the schools. Whatever is good in them he will foster, and whatever is poor and weak he will try to mend. We do not fear to say that a skilled supervisor, giving his whole time to the schools of a little group of neighboring towns, would in one year make a change for the better in our poorest schools that would be simply marvellous, and this change would of itself work other changes. Public sentiment responds to efforts that show good results; the town's pride in its schools is aroused; taxation is no longer the grinding burden that it was, it becomes to an encouraging extent the payment of money for the best sort of return; school committees have their fellow-townpeople on their side, helping instead of thwarting them in their best efforts for the schools; and teachers feel the change and find their burdens lightened. The very atmosphere of the town seems improved.

Third. The chief and almost the only obstacle in the way of this reform is the money that it will cost; but we believe this would not prove the bugbear it sometimes seems. The sum needed to try the experiment is in itself small, and gathered by

a tax laid upon the property of a rich and prosperous State would be almost unnoticed.

The Board desires to call the attention of the Legislature to the subject of private schools, concerning which it is believed some legislation is necessary.

The Board submits herewith the usual reports of its sub-committees, secretary and agents, and the annual statistics.

OLIVER AMES, *ex officio*.

JOHN Q. A. BRACKETT, *ex officio*.

ABBY W. MAY.

MILTON B. WHITNEY.

FRANCIS A. WALKER.

EDWARD C. CARRIGAN.

ELIJAH B. STODDARD.

ALONZO A. MINER.

HORACE E. SCUDDER.

ADMIRAL P. STONE.

Boston, December 15, 1887.

REPORTS OF VISITORS

OF THE

NORMAL SCHOOLS.

STATE NORMAL SCHOOL, BRIDGEWATER.

ALBERT G. BOYDEN, *Principal.*

At the opening of the school this year, one familiar face was wanting. For thirty successive years Miss Eliza B. Woodward has been a teacher in the school, and for the past twelve years has been teacher of drawing. Failing health compelled her to resign her position, and but a few weeks after the beginning of the new school year she died in Harrisburg, Penn. In her long connection with the school she won the love and honor of all who were associated with her or came under her care, impressing them with a sense of her genial sympathy, her thoughtfulness, her ready encouragement, her faithfulness in teaching, her fidelity to the school and her fine loyalty to truth. Hundreds of teachers who look back to their school days at Bridgewater will hold in distinctest remembrance Miss Woodward's kindly face.

Miss Abby M. Spalter, a graduate of the State Normal Art School, five years a teacher of drawing in the State Normal School at Westfield, and five years a teacher of drawing in the public schools of the city of Holyoke, has been appointed her successor.

During the second term of the year just closed, Mr. Joseph Boylston, a graduate from the four years' course, was employed as an assistant in the laboratories. At the end of the year Mr. Frank W. Kendall, who had for two years been employed as instructor in the workshop and assistant in the laboratories, and Mr. Boylston left for more remunerative positions. Mr.

Harlan P. Shaw, a student in the four years' course, is now instructor in the workshop, and Miss Sarah E. Brassill, a recent graduate of the school, is assistant in the laboratories. In other respects the corps of teachers remains the same.

The School of Observation has been doing good work for its own pupils and for the Normal School. The Normal students are greatly benefited by observing the teaching of the children in the subjects which they are studying in the Normal School. We ought to have increased facilities in this department, with more time and place for practice in teaching children by the Normal students before they go out to take charge of their own schools.

Miss Caroline E. Wing, for the last two years principal of the School of Observation, resigned her position in August to take the more remunerative position of principal of the Training School in Manchester, N. H. Miss Grace E. Holden, a graduate of the school and teacher in Hyde Park, succeeds Miss Wing.

The school has received a valuable addition to its grounds by the gift from Dr. Lewis G. Lowe and Mr. Samuel P. Gates, of Bridgewater, alumni of the school, of the chestnut grove on the northeast side of the park. This grove contains one half acre of land, and will be a very pleasant resort for the Normal students during the warmer months of the year.

The old fence around the school lot which was in a state of decay has been removed and the grounds graded to the sidewalk, which greatly improves the appearance of the place.

The statistics for the year ending August 31, 1887, are as follows : —

TERMS BEGAN SEPT. 8, 1886, AND FEB. 11, 1887.	FIRST TERM.			SECOND TERM.			FOR THE YEAR.		
	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Total.
Members,	50	151	201	51	152	203	56	178	234
Entering classes,	18	56	74	4	23	27	22	79	101
Graduates,	3	17	20	6	37	43	9	54	63

The whole number of students who have been members of the school is 3,270; 1,029 men, 2,241 women.

The number who have received certificates or diplomas is 1,989; 637 men, 1,352 women; 93 of whom have graduated from the four years' course, — 54 men, 39 women.

Of the 234 members of the school for this year, Plymouth County sent 88; Norfolk, 34; Bristol, 26; Middlesex, 25; Barnstable, 15; Suffolk, 7; Worcester, 6; Nantucket, 4; Dukes and Essex, each 3; Berkshire and Hampden, each 1; the State of New Hampshire, 10; Maine, 3; the District of Columbia, 2; Illinois, Kentucky, Pennsylvania, each 1; Chili, S. A., 2; Nova Scotia, 1.

Total from Massachusetts, twelve counties and seventy-nine towns, 213; other States and countries, 21.

The number of graduates of the school in attendance during the year has been 3; of college graduates, 1; of undergraduates pursuing the Four Years' Course, 65, — 31 men and 34 women; pursuing the Intermediate Course, 11; the Two Years' Course, 154.

The distribution of the students the first term was as follows: — Graduates, 2; Special Course, 1; Four Years' Course, 63; Intermediate Course, 10; Two Years' Course, senior class, 17; sub-senior class, 31; ex-junior class, 20; junior class, 57.

The distribution during the second term: — Graduates, 2; Four Years' Course, 62; Intermediate Course, 9; Two Years' Course, senior class, 31; sub-senior class, 18; ex-junior class, 54; junior class, 27.

The average age of those admitted during the year was 19 years, 1 month: — of the men, 19 years, 7 months, — of the women, 19 years.

Of the 101 admitted, 2 came from colleges, 3 from Normal Schools, 16 from academies and private schools, 71 from high schools (46 graduates, 25 undergraduates), 6 from grammar schools and 3 from district schools; 25 of these had taught.

The occupations of the fathers of those admitted were given as follows: Mechanics, 28; farmers, 23; traders, 11; professional men, 8; manufacturers, 7; agents and seamen, 2 each; miscellaneous, 8; deceased, or not given, 12.

Of the 101 pupils admitted during the year, Bridgewater sent 9; Brockton and Taunton, 7 each; Boston, Hingham, Middleborough, 4 each; Quincy, 3; Abington, Ayer, Brewster, Cambridge, Fall River, Foxborough, Marshfield, Milton, Reading, Rockland, 2 each; Acushnet, Adams, Barnstable, Berkley, Blackstone, Bourne, Braintree, Charlton, Dedham, Dennis, East Bridgewater, Easton, Freetown, Georgetown, Hanson, Harwich, Holbrook, Malden, Mashpee, Milford, Nantucket, Natick, Orleans, Palmer, Pepperell, Plymouth,

Plympton, Provincetown, Reading, Sandwich, Scituate, Townsend, Tisbury, Waltham, Wareham, West Bridgewater, Weymouth, 1 each : the States of Maine, New Hampshire, Pennsylvania, Illinois, Kentucky, 1 each ; Nova Scotia, 1.

Fifty-nine of the graduates of this year have engaged in teaching. Two are continuing their studies in this school, and two have not yet entered upon teaching. The attendance per term has increased during the last four years from 170 to 222, the number registered the present term.

The boarding hall is full and many besides those coming daily on the cars have to find board outside the hall. The school-room is filled to its utmost capacity. New seats and desks have been provided, and all have been seated by rearranging the seats and making narrower aisles.

Gratifying as this steady and healthy growth of the school is, we have reached a point beyond which we cannot go in adjusting the buildings to the needs of the school. Each year for the past three or four years we have crowded ourselves a little closer, but there is a limit to such temporary expedients. We need more and larger school-rooms if we would do the work of the school properly. Such better accommodations we think may be secured, not by a new building, but by an enlargement of the old building, especially by the addition of another story, a need which was foreseen when the building was erected, and anticipated therefore in the structure. Details will be given hereafter.

H. E. SCUDDER,
FRANCIS A. WALKER,
J. W. DICKINSON,
Visitors.

STATE NORMAL SCHOOL, FRAMINGHAM.

MISS ELLEN HYDE, *Principal*.

The visitors of the Framingham Normal School have much pleasure in presenting the forty-eighth annual report of the school. The last year was a prosperous one. The entering classes were very good in numbers, and showed a gratifying improvement in the quality and the preparation of those who entered. This last fact is of the greatest importance; but we have to say again what has so often been said, that the highest usefulness of the Normal Schools demands constant progress in this direction. If all who enter could be graduates of High schools or have equivalent advantages, the professional work would obviously be more thorough and extended, and would show much higher results in the success of the graduates when they assume the charge of schools. Our community is realizing the truth of this, and before long we hope that public opinion will demand either the higher preparation of candidates for admission, or a course in the schools lengthened by six months or a year. Either alternative would be an immense addition to the power of the Normal schools and of their graduates.

There was no change among the teachers except that Miss Pratt was given a year's leave of absence on account of ill health. Miss Mary L. P. Shattuck took her place, bringing to the work a wide experience and most conscientious devotion that were a strength to the school. We are glad once more to express our full confidence in the teachers, and our gratification at the docility and faithfulness of the pupils. The good promise with which both classes entered was well fulfilled

throughout the year. On all sides has been apparent a determination to keep up the good record of the school.

The training-school was, as usual, full to overflowing, and continued its excellent work for its pupils and for the Normal scholars. In another connection we shall refer to the difficulties under which the work of both schools is done.

During the year we were favored with a course of lectures on Psychology, by the Secretary of the Board; a course on Literature, by Prof. W. P. Atkinson; a lecture on "Memory," by Hon. B. G. Northrop; one on "Elements of Success in Teaching," by Mr. John T. Prince, Agent of the Board; an address on the "Education of Women in Turkey," by Mr. Terzian, an Armenian; a lecture on "Wendell Phillips," by Mrs. Livermore; and one on "Education in the South," by Rev. A. D. Mayo.

The chief event of the year was the opening of the new boarding-house; which proves, as was expected, an invaluable addition to the working-power of the school. It is commodious and very pleasant, and well adapted to the purpose in almost every respect, though some small matters still remain incomplete. The system of drainage, which was sufficient for one house, is unequal to the increased demand and needs to be extended. The heating apparatus proved insufficient in the coldest weather; but the Gurney Company who put it in made some changes in it during the summer, and intend to give it personal oversight when the cold weather comes. They have no doubt that it is now equal to the greatest possible demand upon it; if not, they will do what is needful to make it so. We named the building Crocker Hall in honor and in memory of Miss Lucretia Crocker, a graduate of the school, for four years a most valuable and successful teacher there, for some months its acting-principal, and its warm friend as long as she lived. The house was opened in January and was immediately filled. Miss Amelia Davis is at the head of the family, which includes three teachers and thirty-five pupils.

The old boarding-hall continues full. It is in need of thorough repairs. This we think will be apparent to any committee of the Legislature who inspect it. We have prepared an estimate of the probable cost of the work needed. Miss

Beach, who has long had charge of this house, now has both boarding-houses under her care, and does all that a matron can possibly do for the health, comfort and happiness of the two families. To her care we no doubt owe, in large measure, the good health which prevails.

The statistics which we present complete the story for the year. They show that the slight increase in numbers which has been noted for the last few years still continues. It seems now to have nearly, if not quite, reached the limit of accommodations. Indeed it exceeds the limit of any proper accommodation. The last Legislature appropriated five thousand dollars for repairing the school building according to estimates presented. But as the time for beginning the work drew near, it became plain that the condition of the building would hardly warrant so large an outlay. After bringing all possible light to bear upon the question the visitors decided to reserve the money appropriated, and to make an appeal to the coming Legislature for a new building. We believe that a thorough consideration of the whole question will justify us in the course pursued. To spend five thousand dollars upon a building which is not sound, and which with that expenditure cannot be made so, one which has for some time been too small for the needs and was not in its best days either convenient or very comfortable, seems poor economy. We shall be prepared to present the case in full detail when the proper time comes. It will then be shown that the school has for years been carried on under very great disadvantages. Crowded in space, every inch of room has been used, in many cases twice used. The dressing-rooms have been made to serve the two purposes of dressing-rooms and of recitation-rooms, — a questionable arrangement in regard to health, and thoroughly inconvenient. They are too small even for their legitimate purpose, and when a class gathers in one, visitors who would inspect the work must stand in the doorway. The air is filled with the odor of outside garments and over-shoes, and flavored with the luncheons of the children; and the usual requirements for a recitation-room are wanting, owing to lack of room for blackboard, table or any illustrative apparatus. The small entrance-hall also is used for recitations, where there is not light enough to read with safety to the eyes, nor

Whole number in school during the year, 143

Number of graduates:—

January, 1886,	15
June, 1887,	24
Total,	<hr/> 39

Residence of pupils,—New Hampshire, 6; Connecticut, 2; New York, 4; New Jersey, 1; Washington, D. C., 1; Missouri, 1; South Carolina, 1; Illinois, 1; Massachusetts, 126: viz., Middlesex County, 63; Worcester County, 34; Norfolk County, 19; Plymouth County, 2; Bristol County, 2; Suffolk County, 2; Nantucket County, 1; Franklin County, 1; Hampden County, 1; Hampshire County, 1; total, 143.

Occupation of parents:—

Farmers,	32
Merchants,	16
Mechanics,	23
Manufacturers,	11
Clergymen,	3
Lawyers,	2
Doctors,	1
Teachers,	1
Laborers,	15
Clerks,	11
Unclassified,	<hr/> 28
Total,	143

ABBY W. MAY,
A. A. MINER,
J. W. DICKINSON,
Visitors.

SALEM NORMAL SCHOOL.

D. B. HAGAR, *Principal.*

The visitors again congratulate the Board on the continued excellence of the work done at Salem and the recognized influence which this school exercises upon the teaching profession. No one can visit the class-room without appreciating that here the pupils have before them a living example of the force and influence of the natural teacher. Here is found fully demonstrated the familiar maxim that the master makes the school. With the accomplished principal is joined a most earnest corps of assistants, whose pride in maintaining the prestige of the school and the high standard of popular education in the Commonwealth merits the very generous appreciation of all who are charged with the organization and maintenance of our common schools.

In this connection we would call attention to the fact that, considering the qualifications which we require of teachers in Normal schools, the exacting service and a residence during the year in the immediate vicinity of the school, the salaries paid are inadequate. Said Mr. Justice Fletcher in the case of *Batchelder v. City of Salem*, "The character of the school will depend on the character of the teacher, and the character of the teacher will depend on the compensation." While this opinion of our court had special reference to the maintenance of common schools, and the power of the school committee to fix the compensation, the same reasoning applies with even stronger force to the selection of teachers for our higher professional schools. Neither the State nor towns can afford to discourage the best talent from entering the school-room.

The reasons are numerous, apparent and conclusive that the policy of the State should be at all times a liberal one in the matter of salaries of its teachers. At Salem there is needed an additional appropriation for salaries, special instruction in writing, and repairs, the details of which will be presented to the Legislature through its appropriate committees.

GENERAL CATALOGUE.

The report of the visitors would be incomplete without reference to the recent catalogue of the teachers and pupils of the school, a volume of 285 pages, in which is found its history and a brief sketch of the lives of the successive principals. The publication, which is the property of the association of the alumnae, will be of great value, and the State is especially indebted to Miss Mary N. Plumer, a member of the corps of instructors, for the service she has rendered in thus preserving the history and statistical data of the school. The general catalogue shows the total number of admissions to have been 3,242, with 1,568 graduates.

STATISTICS.

The statistics of the school are as follows : —

1. The whole number of pupils belonging to the school during the year was 294.

Of this number, Essex County sent 149 ; Middlesex, 87 ; Suffolk, 12 ; Plymouth, 5 ; Barnstable, Hampden and Worcester, 1 each. The State of Maine sent 10 ; New Hampshire, 18 ; Vermont, 4 ; Connecticut, 1 ; Florida, 1 ; Missouri, 1 ; the District of Columbia, 1 ; the West Indies, 1 ; and Japan, 1.

The number present during the term which closed Jan. 25, 1887, was 246 ; the number present during the term which closed June 28, 1887, was 242 ; whole number of different pupils for the year, 294.

The whole number of pupils that have been members of the school since its opening in September, 1854, is 3,243.

2. The number graduated from the regular course, Jan. 25, 1887, was 23 ; the number graduated from the same course, June 28, 1887, was 41 ; and from the advanced course, 3.

The whole number of graduates of the school (62 classes), is 1,568.

3. The number that entered the school, Sept. 7, 1886, was 90 ; the number that entered, Feb. 8, 1887, was 42.

4. The average age of the class admitted Sept. 7, 1886, was 18.37 years ; of the class admitted, Feb. 8, 1887, 19.87.

Of the 90 pupils admitted to the school in September, 1886, 2 came from Normal schools ; 71 from high schools (49 graduates, 22 undergraduates) ; 5 from grammar schools ; 1 from a district school ; 3 from academies ; 2 from seminaries ; 1 from a college ; 2 from private schools ; and 3 from sisters' schools.

Of the 42 pupils admitted in February, 1887, 1 came from a Normal school ; 21 from high schools (11 graduates, 10 undergraduates) ; 12 from grammar schools ; 2 from district schools ; 1 from an academy ; 1 from a seminary ; 1 from a commercial college ; 2 from private schools ; and 1 from a sisters' school.

5. The fathers of the pupils admitted during the year are by occupation as follows : Mechanics, 45 ; traders, 23 ; farmers, 19 ; manufacturers, 9 ; agents, 7 ; U. S. officers, 6 ; professional men, 5 ; miscellaneous, 18.

6. The number that received aid from the Bowditch fund during the first term was 33 ; during the second term, 28. The number of different pupils thus aided was 46.

7. Of the class admitted in September, 1886, 10 had taught school ; of the class admitted in February, 1887, 13 had taught.

8. The number of pupils connected with each of the classes during the first term of the year was as follows : Special students, 4 ; advanced class, 13 ; class A (senior), 27 ; class B, 56 ; class C, 46 ; class D, 100.

The number during the second term : Special students, 4 ; advanced class, 13 ; class A, 44 ; class B, 44 ; class C, 79 ; class D, 58.

9. Of the 132 pupils admitted during the year, Salem sent 16 ; Lowell, 8 ; Danvers and Lynn, 7 each ; Peabody, 6 ; Boston, 5 ; Chelsea, Everett, Gloucester, and Somerville, 4 each ; Andover, Wakefield, Winchester, and Woburn, 3 each ; Beverly, Cambridge, Danvers, East Cambridge, Ipswich, and Reading, 2 each ; Arlington, Billerica, Cambridgeport, Charlestown, Georgetown, Glenwood, Groton, Hamilton, Lawrence, Littleton, Marblehead, Melrose, Melrose Highlands, Middleton, North Cambridge, North Reading, North Scituate, North Wilmington, Salisbury Point, Saugus, Stow, Tapleville, Topsfield, and Waltham, 1 each. The State of Maine sent 6 ; New Hampshire, 8 ; Vermont, 2 ; Connecticut, 1 ; Missouri, 1 ; the District of Columbia, 1 ; and Japan, 1.

10. During the year 16 books were added to the general library, 14 by purchase and 2 by gift.

The text-book library was increased by the purchase of 211 books.

The school was favored with lectures as follows: Rev. A. E. Winship, of Boston, on "Psychology;" Rev. Dr. Anderson, of Salem, on "Education;" Hon. George B. Loring, of Salem, on "Hawthorne;" Rev. Charles B. Rice, of Danvers, on "Women of the Middle Ages;" Rev. Dr. Gracey, of Salem, two lectures on "Battle of Gettysburg;" Hon. Clarence Pullen, of New Mexico, on "New Mexico."

EDWARD C. CARRIGAN,
FRANCIS A. WALKER,

Visitors.

STATE NORMAL SCHOOL, WESTFIELD.

JAMES C. GREENOUGH, *Principal*.

The last year has been a very successful one in the history of the school.

Mr. Scott, whose retirement from the principalship of the school was noticed in our last report, returned to the school at the commencement of the fall term with renewed health, and he and Principal Greenough are laboring zealously together to promote its greatest efficiency and usefulness.

Miss Laura E. Prentice after seventeen years of very successful service entered into a lifelong contract with a gentleman in a neighboring city, and thus compelled the reluctant acceptance of her resignation as a teacher at the close of the school year.

Miss Annie R. Slafter, who for three years rendered very acceptable service as teacher of penmanship and drawing, also resigned at the close of the school year. Miss Fannie H. Smith was appointed her successor and entered upon her duties at the beginning of the school year in September. She is eminently qualified for the position by her acquisitions and experience, having completed the course at the Normal Art School in Boston, and having taught with success for four years.

All the other teachers, who have largely contributed to the success of the school, remain.

The usual good health of the pupils of the school has been maintained throughout the year, and their zeal and faithfulness in the work of the school has known no abatement. The class that entered at the beginning of the present year was excep-

tionally large, and promises to be one of the ablest in the history of the school.

The sanitary condition of the Normal boarding-hall has been very much improved by the construction of the brick sewer, in accordance with chapter 369 of the Acts of 1887, by the Commissioners named therein. As soon as the sewer was completed the brook, which had run under the hall and been used as a sewer therefor ever since its erection, was turned into the new sewer, the old channel of the brook, under the building, was filled and the basement put into excellent condition. The plumbing and heating apparatus of the boarding-hall have been thoroughly reconstructed, under the direction of the visitors and within the appropriation made by chapter 23 of the Resolves of 1887. By reason of the above and other important repairs therein it is believed that the sanitary condition of the hall is excellent.

It was expected that the sewer would be constructed and the repairs upon the boarding-hall completed during the summer vacation, but the work upon the sewer was necessarily delayed by frequent and abundant rains and in consequence the present term opened two weeks later than usual.

The necessity of obtaining additional ground for the use of the pupils for purposes of exercise is every day more evident. For a full statement of the cramped condition of the grounds and the imperative need of an addition thereto we would refer to our last report.

The construction of a new concrete walk in front of Normal Hall by the town upon the established grade of streets, but at a considerable elevation above the level of the school yard, renders necessary the filling and grading of the yard, and we recommend an appropriation for that purpose.

The legislative committee upon education addressed the school upon the occasion of their visit during the spring term.

The Secretary of the Board addressed the senior class upon "The Duties of Teachers under the Laws of the State," and also addressed the school upon other educational topics.

The visitors have also addressed the school during the year. Other addresses have been given by Prof. J. O. Murray of Princeton, N. J., upon "Authors and their Writings;" by Rev. Dr. Dennison of Williams College upon "Painters and

Paintings;" by Prof. True of Wesleyan University upon "Life in Ancient Rome;" by Rev. B. G. Northrop upon "Memory;" by Charles M. Smith, Esq., upon "Life at Andersonville and the Story of my Escape." E. A. Hubbard, Esq., acting Agent of the Board of Education, has also addressed the school. Prof. R. G. Hibbard of Wesleyan University has given readings. The statistics of the school are appended to the report.

The methods of the school are but applications of the principles of teaching determined by the nature of the human mind. The principles of teaching have been recognized more or less clearly by eminent teachers in every age. In our own day, as never before, there is a deep interest in all that pertains to the science and art of teaching. To this interest in our own and in other States the Westfield school has pre-eminently contributed. The permanency of teachers of singular professional zeal, working together with marked unity and persistency of purpose, has clearly done much to advance the science and art of education. But the success of the graduates of the school in applying the principles of teaching by the use of correct methods is the ultimate test of the value of the school. For nearly fifty years this test has been applied. Early opposition to the methods originated in this school has given place to a hearty appreciation, as shown by the increasing demand for the graduates. This demand we are unable to supply. The reputation of the school is deservedly excellent and its opportunities for usefulness are large. Yet the time has come when the interests of public instruction demand that the hindrances to the larger usefulness of the school should be overcome.

Four conditions of a good Normal School may be noted. 1. Good teachers. 2. Pupils whose native endowments and previous acquisitions fit them to become, by the course of instruction and training of the school, excellent teachers. 3. A favorable public sentiment helpful both to the school and to the graduates in their several schools. 4. Suitable rooms furnished with the requisite material aids of teaching.

The ability and earnestness of the teachers in this school is unquestioned. The school to-day is full of an excellent class of pupils. The public in high degree appreciates the good work of the school and of its graduates. The fourth condi-

tion named the school does not possess. The Westfield Normal School is in pressing need of suitable rooms, and lacks requisite material aids of teaching. Much of the apparatus that should be obtained and used cannot be for the lack of suitable rooms. Even some of the apparatus we have is comparatively useless. Because of the lack of appliances the school is failing to make that advance in the art of teaching that should be made; it is not accomplishing all it should in promoting the welfare of the public schools of the State.

We have no building and no rooms in which we can maintain a school of children of different grades, in charge of the authorities of the Normal School and under the direction of a competent teacher, nor have we any training school of any kind. Hence the graduates of the school cannot gain that skill in teaching that they should have before leaving the school.

Our school building is three stories in height, with the study hall on the third floor. After all that we can do to diminish the frequency of passing over the stairs, young ladies suffer in health from this cause. (The evils arising from the arrangement of the rooms are greater because of the steepness of the stairs.) Strong men who visit the school usually remark upon the difficulty of ascent to the study hall. The building is so constructed that the rays of the sun are shut from every room on the south, with the exception of the study hall. The building is so low that the cellar cannot be well ventilated, and water in the cellar has been a common occurrence, especially during the spring term. The water closets are not in proper sanitary condition, owing to defective construction. The larger recitation rooms are so poorly lighted that even in the forenoon we are sometimes obliged to use gas, and at no time is the light sufficient. There is no recitation room in our present building suitable for a chemical laboratory, which is essential to the proper study of chemistry. There is no recitation room suitable for a physical laboratory, which is also essential. We have neither the room nor the appliances for the proper study of botany beyond its simplest elements. We have no suitable place for the care and consultation of reference books. We have no suitable room for instructing our classes in drawing. Most of our minerals are arranged

upon shelves, but are so difficult of access, owing to the arrangement of the rooms, and have so little light, that for purposes of study by the pupils they are of little value. It is due to the State, and especially to that large portion of the State which the school specially serves, that the hindrances to the work of the school shall be removed. When suitable rooms and proper appliances are provided the school will enter upon a new era of usefulness.

Statistics of Westfield Normal School — 1886-87.

	WINTER TERM.			SUMMER TERM.			FOR THE YEAR.		
	Young Men.	Young Women.	Totals.	Young Men.	Young Women.	Totals.	Young Men.	Young Women.	Totals.
Number of pupils in school,	6	121	127	8	112	120	8	141	149
Number of pupils in entering classes,	1	59	60	2	14	16	3	73	76
Number of graduates,	-	8	8	1	18	19	1	26	27
Average age of enterers,	Yrs. Mos. 24 4.4	Yrs. Mos. 18 11	Yrs. Mos. 19 0.1	Yrs. Mos. 18 5.5	Yrs. Mos. 20 0.7	Yrs. Mos. 19 10.3	Yrs. Mos. 20 5.1	Yrs. Mos. 19 1.6	Yrs. Mos. 19 2.2
Average age of graduates,	-	Yrs. Mos. 19 6.9	Yrs. Mos. 19 6.9	Yrs. Mos. 19 1.5	Yrs. Mos. 20 11.1	Yrs. Mos. 20 10	Yrs. Mos. 19 1.5	Yrs. Mos. 20 6.1	Yrs. Mos. 20 5.5
Number of enterers who had taught,	1	19	20	-	6	6	1	25	26

Statistics of Westfield Normal School — 1886-87 — Concluded.

Number of States, etc., represented by pupils.	Number of pupils from each State represented.		Number of pupils from each county of Mass. represent'd.		Occupations of fathers of enterers.	Number of enterers from High Schools, etc.	
States,	6	Connecticut,	8	Berkshire,	Clergymen,	Academies,	7
Towns and cities,	67	Massachusetts,	129	Bristol,	Farmers,	District,	5
Counties in Massachusetts,	7	New Hampshire,	2	Franklin,	Laborers,	Grammar,	7
Families,	149	New Jersey,	2	Hampden,	Machinists,	High,*,	48
		Virginia,	2	Hampshire,	Manufacturers,	Miscell'ous,	9
		Vermont,	6	Suffolk,	Mechanics,		
				Worcester,	Merchants,		
					Miscellaneous,		

* 16 Graduates.

M. B. WHITNEY, }
A. P. STONE, } *Visitors.*
J. W. DICKINSON, }

STATE NORMAL SCHOOL AT WORCESTER.

E. HARLOW RUSSELL, *Principal*.

STUDENTS.

The present year has been one of gratifying prosperity and usefulness in this school. The large number in attendance at the time of the last report has been increased, while the quality of the entering classes is evidently well up to the standard of past years.

A larger proportion of applicants at each entrance examination shows a proper and adequate preparation in point of scholarship, but it is found that many of the graduates of high schools who come to us are disposed to regard the acquisition of knowledge as an end in itself, and that they come round somewhat slowly from the attitude of getting lessons to that of teaching children. In other words, the drift and momentum of the high school course is naturally in the direction of acquiring rather than imparting knowledge. This operates with not a few pupils as something of a draw-back in the early part of their Normal School course, but it seems inevitable, and it is perhaps more than made up for by the greater intellectual suppleness and skill which such students possess as a result of their high school training.

We find as a rule no more apt or agreeable pupils than those who have added to a good course of preparatory study a year or so of experimental school teaching. It is easy for such to understand what the Normal School is for, and to fall into active sympathy with its aims and methods.

It is interesting to note how large a proportion of the students elect to take the "apprenticeship," thereby vol-

untarily lengthening their course by six months, and it is the uniform testimony of graduates who have served the apprenticeship that no part of their course was of greater practical value.

TEACHERS.

No change has been made during the year in the corps of instructors, and it is the hope of the visitors that none may be made, except in the way of additions, for years to come. The increase of numbers has, however, crowded them with work and calls for at least one additional assistant. It is not good policy to keep every teacher occupied in the class-room every hour of the day; an arrangement by which some one of the staff shall be always at liberty is the only one that can carry a school smoothly over the occasional temporary absences of teachers that occur from illness and other inevitable causes. The visitors also suggest that it might be good economy to employ a clerk or copyist instead of putting upon the instructors any considerable amount of merely clerical work.

GRADUATES.

The demand for our graduates, especially for such as had received a good high school education before coming here, continues to increase.

The unusually large classes which have graduated the past year have nearly all made engagements to teach in very desirable positions. The conviction is steadily gaining ground in the community that systematic preparation for the teacher's calling, instead of repressing or restricting the exercise of natural ability, really gives it scope and flexibility and guides it into more effective channels. Observation shows that schools taught by untrained teachers are likely to resemble one another far more than do those taught even by different graduates of the same Normal School,—the effect of good Normal training being to enrich and equip the student with varied and variable methods, and to teach him how to apply them under different conditions so as to accomplish the aims of education.

The only obstacle to the immediate employment of all our graduates lies in the desire of many of them to teach only in

cities and large villages, in which preference teachers but share the common and wide-spread tendency of the times.

Even as it is each half-yearly class is generally engaged in teaching a considerable time before the next graduation day comes round.

The enthusiasm and loyalty of the graduates as a body is characteristic and admirable. They write many letters to the Principal and often visit the school, and at their annual reunion in June they throng the building and make a memorable evening of reminiscence and social enjoyment.

THE GROUNDS.

It was hoped that the appropriation made by the last Legislature would be sufficient to enclose and properly grade our grounds. The work, however, though done with the utmost care and economy, has exceeded in difficulty and consequently in cost every estimate that could be made beforehand.

The hill which constitutes the school lot, comprising a little more than five acres, proves to be an irregular mass of gneiss rock of great hardness, rather thinly over-laid with soil. This makes necessary, first, the removal of much rock by blasting, to give a proper foundation for the wall; secondly, the laying of the wall itself, which is wholly of masonry; and finally, the grading of that part of the enclosed land which lies near the wall, in order to give the necessary finish to the surface.

The circumference of the lot to be enclosed is 1,773 feet. Up to this time 1,327 feet of wall, including all the piers and gate-posts, have been completed, with the exception of the coping, and about two acres of ground have been graded, manured and laid down to grass. During the present year more than 900 cubic yards of solid rock and about 5,000 cubic yards of earth have been removed; 850 cubic yards of masonry have been laid, and in the foundations and backing for this about 1,000 cubic yards of broken and loose stone, laid dry, have been put in.

The expense of this work, even in its present incomplete state, has exceeded the appropriation, for the reason that at the time when the funds were exhausted the work was at a stage of progress where it could not be left and afterwards resumed without serious pecuniary loss to the State; and of

course it could not reasonably be assumed that the Commonwealth would abandon the undertaking at a point so near its completion.

What now remains to be done is this :—

First, to build the remaining 446 feet of plain wall (the piers and gate-posts, as stated above, being already built) ; secondly, to furnish the entire wall, including the piers with a suitable coping ; thirdly, to provide proper gates for the two entrances ; and fourthly, to grade, manure and seed down the remainder of the ground.

When the work is completed the lot will have the protection and privacy which it has sorely needed for years, and will afford the pupils an ample and pleasant place for out-of-door exercise, as well as picturesque and fertile lawn to beautify by the planting of trees and shrubs from year to year. Our students have already made a praiseworthy beginning by setting out with their own hands more than a hundred and fifty trees and shrubs, besides large numbers of vines and flowering plants, and by the end of another year, if the security of a finished enclosure be afforded, a great change for the better will have been effected in the whole aspect of the rugged but beautiful and commanding site of this institution.

SEWAGE AND DRAINAGE.

Provision must be promptly made to connect the sewer pipe, which now empties into a cess-pool, with the city sewer on Gage Street. The imperative necessity for this change will appear from the fact that the cess-pool, owing to long use and to recent increase in the school attendance, is now in an almost constant state of overflow, thereby polluting not only the southerly part of the grounds, only a few rods from the school building, but also the adjoining street (Eastern Avenue) to an extent that has already called forth a remonstrance from the Board of Health and which would not be allowed on a private estate.

The water from the roof of the building must also be turned into the sewer, as the wash of every heavy rain does serious damage to the grading, an evil that will increase until stopped by the change above suggested.

ACKNOWLEDGMENTS.

We are indebted to Professor Edward S. Morse, Ph. D., of Salem, who gave the anniversary address in June, — a most acceptable talk on “The Manners of the Japanese.”

Our thanks are also due to Edward Winslow Lincoln, Esq., and to James Draper, Esq., of Worcester, for the gift of young trees for planting, and to Hon. Theodore C. Bates for a copy of “The History of North Brookfield.”

STATISTICS.

1. Numbers : —

Enrolled Nov. 1, 1886,	164
Enrolled Nov. 1, 1887,	169
Temporarily absent by permission,	15
Whole number of different pupils enrolled during the year 1887,	258

2. Numbers in entering classes : —

In February,	27
September,	49
Total,	76

3. Average age of pupils admitted : —

In February,	18 years, 11 months.
September,	18 years, 5 months.

4. Of the pupils admitted there were : —

From Essex County,	1
Worcester County,	64
Connecticut,	4
Kentucky,	1
Maine,	1
New Hampshire,	3
New York,	1
Vermont,	1
Total,	76

5. Occupations of pupils' parents : —

Professional,	3
Mercantile,	12
Skilled labor,	26
Unskilled labor,	31
Unknown,	4
Total,	76

6. Numbers in graduating classes : —

In January,	.	.	.	.	.	.	.	.	.	17
June,	.	.	.	.	.	.	.	.	.	25
Total,	.	.	.	.	.	.	.	.	.	<u>42</u>

7. Average age of graduates : —

In January,	.	.	.	.	.	22 years, 2 months.
June,	.	.	.	.	.	20 years, 10 months.

8. Number of the above graduates now teaching (Nov. 1, 1887) :

January class, all ; June class, more than two-thirds known to be teaching, but our information is at this date incomplete.

9. Increase of numbers : —

Number enrolled in 1886,	.	.	.	.	.	.	231
enrolled in 1887,	.	.	.	.	.	.	<u>258</u>
Increase,	.	.	.	.	.	.	27
Number graduated in 1886,	.	.	.	.	.	.	26
graduated in 1887,	.	.	.	.	.	.	<u>42</u>
Increase,	.	.	.	.	.	.	16

10. Additions to the library : —

Text-books,	.	.	.	.	.	.	413 volumes.
Reference-books,	.	.	.	.	.	.	92 volumes.
Total,	.	.	.	.	.	.	<u>505 volumes.</u>

11. Number of volumes now in the library : —

Text-books,	.	.	.	.	.	.	4,620 volumes.
Reference-books,	.	.	.	.	.	.	<u>2,214 volumes.</u>
Total,	.	.	.	.	.	.	6,834 volumes.

E. B. STODDARD,
A. P. STONE,
J. W. DICKINSON,

Visitors.

WORCESTER, Nov. 3, 1887.

STATE NORMAL ART SCHOOL.

GEORGE H. BARTLETT, *Principal*.

The visitors of the Normal Art School submit their fourteenth annual report, covering the school year 1886-87.

The appropriation for the year was \$16,210. The expenditures were \$16,276.06, of which \$118.69 was paid from the incidental fund. The appropriation for 1887 is \$16,000.

The number of pupils last year was 154, — young men, 25 ; young women, 129.

The distribution of members in the several classes was as follows :—

Preparatory class,	.	.	.	.	.	.	.	.	.	16
Class A,	.	.	.	.	.	.	.	.	.	77
Class B,	.	.	.	.	.	.	.	.	.	45
Class C,	.	.	.	.	.	.	.	.	.	5
Class D,	.	.	.	.	.	.	.	.	.	11
										<hr/>
Total,	.	.	.	.	.	.	.	.	.	154
Post-graduates,	.	.	.	.	.	.	.	.	.	2

The average age of the pupils at the time of admission was 22 years, an advance of more than a year over those of 1885-86 ; attributable in part, probably, to the higher qualifications demanded.

The number of pupils in the school at this date, Nov. 1, 1887, very much exceeds the number at the corresponding date last year, and exceeds indeed the whole number for the year. The numbers, Nov. 1, 1886, were 131 ; Nov. 1, 1887, 170. There were received last year after November 1, 23 pupils. The total number during the school year 1885-86 was 143 ; during the year 1886-87, 154 ; during the current year

Students have taken positions as teachers of drawing in prominent places since June, 1887, as follows :—

City of Boston, evening schools, including East and South	
Boston, Charlestown and Roxbury,	7
Boston, private schools,	3
Salem, private school,	1
Westfield, normal school,	1
Bridgewater, normal school,	1
Worcester, high school,	1
Chelsea, high school,	1
Waltham, evening school,	1
Malden, evening school,	1
Quincy, evening school,	1
Fall River, day school,	1
Lawrence, day school,	1
Quincy, day school,	1
Watertown, day school,	1
Brockton, day school,	1
Marlborough, day school,	1
Milford, day school,	1
Dedham, day school,	1
Cornell University, Ithaca, N. Y.,	1
New Orleans, La.,	1
Emporia, Kan.,	1
St. Louis,	1
New York City,	2
Brooklyn, N. Y.,	1
Providence, R. I.,	1
Jackson, Mich.,	1
Total,	<hr/> 35

Of these, the number who had received certificates, or one or another of the diplomas, is as follows :—

Certificate A,	14
Certificates A and B,	13
Diploma A and C,	4
Diploma A, B and D,	2
Diploma, four years' course,	2
Total,	<hr/> 35

The annual graduating exercises of the school took place June 24, 1887, and were similar in character to those of the two preceding years. Besides the devotional services, conducted by Rev. Mr. Waldron, and the music interspersed

throughout the programme, "Teaching Exercises" were given by Lucelia A. Kimball and Elizabeth H. Perry of the newly-formed public school class; a paper by Frank F. Frederick on "Gothic Ornament;" one on "Symbolism," by Georgie L. Norton; one on "Art applied to Industry," by Henry T. Bailey, with illustrations by students; one on "Anatomy applied to the Grotesque in Art," by Annie E. Blake, with illustrations by Alice Maud Nye; illustrations in "Perspective," by Antoinette P. Taylor, B. Howard Rowell and Ethel G. Bartlett; all of which were listened to by an appreciative audience, crowding the large hall to repletion, and followed by brief addresses from the Principal, Mr. George H. Bartlett, His Excellency, Governor Ames, Senator Marden, Rev. C. B. Rice and the Chairman of the Board of Visitors, Rev. Dr. Miner.

In addition to the Normal work of the previous years, which had been extended through all the departments of the school, arrangements were made at the middle of the year for the organization of a special "public school class." Only those pupils whose attainments were equivalent to those of high school graduates were admitted to this class; and since the course of training is intended to occupy two years, a beginning only was made. During several weeks in the latter part of the term children were received from the Prince School, on the opposite side of the street, out of school hours, as a practice class, and some excellent results obtained. The work of this year's class, which has twenty-two members and is made up, on the whole, of excellent material, is approaching much more nearly to the original design. Another year, however, will be requisite to develop the full scope of this department. It aims to prepare pupils, not only to teach drawing according to the best methods in the public schools, but to take the platform, to address intelligently bodies of teachers, and to discharge effectively the duties of supervisors of drawing in our larger towns and cities. Steps also have been taken in connection with the State agent for the promotion of drawing, and with the teachers of drawing in the several Normal schools to raise the standard of drawing in the public schools and secure greater uniformity of results throughout the State.

The lectures on "The Principles and Methods of Teaching,"

by Hon. John W. Dickinson, secretary of the Board of Education, are a most valuable contribution to the work of the school, and are highly and universally appreciated. It is hoped that they may be long enjoyed.

Another important advance in the current year's work is the establishment of a "life class" for the study of the human figure. In the conduct of this class, which is a most noticeable contribution to the higher departments of the school work, the services of Mr. F. H. Tompkins have been secured. It is gratifying to be able to say that his instruction is proving not only eminently valuable, but every way satisfactory.

Mr. Munsell, who in his tarry abroad is winning honors for himself and our school, and we hope preparing himself greatly to benefit the school on his return, will resume his connection with it at the opening of the next school year.

All the other departments of work remain in charge of the same teachers as heretofore, who are fully meeting all reasonable demands upon them. There is a unity of aim and spirit worthy of high commendation. Everything is made to rest on solid foundations. All honors bestowed must first be earned. As a consequence there is an earnestness and a diligence that are harbingers of great individual advancement.

As was anticipated a year ago, the new building was taken possession of at the middle of February, and is fully meeting all expectations in respect to its fitness and general convenience for the work of the school. It is already apparent that in no respect is it too large; and it may be that the growth of the school will develop needs that did not exist when the building was designed. The appropriation for the building was \$85,000. The actual expenditure was \$84,852.02, leaving a balance of \$147.98. The appropriation for furnishing was \$5,000; already expended, \$4,913.38, leaving unexpended \$86.62.

The institution, taken all in all, building and school, is one of which the State may justly be proud.

A. A. MINER,
ABBY W. MAY,
H. E. SCUDDER,
F. A. WALKER,
J. W. DICKINSON,

Visitors.

FIFTY-FIRST ANNUAL REPORT

OF THE

SECRETARY OF THE BOARD.

SECRETARY'S REPORT.

To the Board of Education.

I respectfully present herewith the Fifty-first Annual Report of the Secretary.

SUMMARY OF STATISTICS FOR 1886-87.

Number of cities and towns: Cities, 23; towns, 326.

All have made the annual returns required by law.

Number of public schools,	6,836
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Increase for the year,	119
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Number of persons in the State between the ages of 5 and 15, May 1, 1886,	353,052
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Increase for the year,	4,149
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Number of pupils of all ages in all the public schools during the year,	353,361
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Increase for the year,	3,744
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Average membership of pupils in all the public schools during the year,	291,539
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Increase for the year,	2,899
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Average attendance in all the public schools during the year,	262,159
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Increase for the year,	2,071
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Per cent. of attendance based upon the average membership,	.90
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Number of children under 5 years of age attending the public schools,	1,375
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Decrease,	58
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Number of persons over 15 years of age attending the public schools,	28,968
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Increase for the year,	996
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Number of persons employed as teachers in the public schools during the year: Men, 1,033; women, 8,696; total, . . .	9,729
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Number of teachers required by the public schools, . . .	8,520
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Number of teachers who have attended Normal Schools, . .	3,134
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Increase for the year,	131
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Number of teachers who have graduated from Normal Schools,	2,533
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Increase for the year,	113
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Average wages of male teachers per month in public schools,	\$116 85
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Increase,	\$5 62
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Average wages of female teachers per month in public schools,	\$44 93
Increase,	\$0 96
Aggregate of months all the public schools have been kept during the school year,	60,056-7
Average number of months the public schools have been kept for the entire year,	8-9
Number of high schools,	229
Number of teachers in high schools,	701
Number of pupils in high schools,	22,406
Amount of salaries paid to principals of high schools, . . .	\$288,959 76
Evening schools: Number, 154; kept in 41 cities and towns.	
Number of teachers, 630; whole number of pupils, 15,681; men, 12,417; women, 3,264; average, 7,986; number of evenings, 4,198; expense,	95,081 56
Amount raised by taxation for support of public schools, including only wages of teachers, fuel, care of fires and school-rooms,	5,059,939 43
Increase for the year,	\$242,510 42
Expense of supervision of the public schools,	200,472 55
Salaries of superintendents included in the above,	94,060 29
Expense of preparing and printing school reports,	12,706 23
Expense of sundries,— books, stationery, globes, maps, etc., .	424,697 29
Amount expended in 1886-87 for new school-houses, . . .	585,951 68
Amount expended for alterations and permanent improvements in school-houses,	153,238 00
Amount expended for ordinary repairs,	403,572 84
Amount of voluntary contributions to public schools, . . .	2,490 63
Amount of local school funds, the income of which can be appropriated only for the support of schools and academies,	2,096,552 93
Income of local funds appropriated to schools and academies,	105,750 22
Income of funds appropriated for public schools at the option of the town, as surplus revenue, tax on dogs, etc., . . .	88,496 37
Income of State school fund paid to cities and towns in aid of public schools for the school year 1886-87,	68,518 50
Of this amount, there was appropriated for apparatus and books of reference,	3,372 49
Aggregate returned as expended upon public schools alone, exclusive of repairing and erecting school-houses, . . .	5,857,321 00
Of the above, to each child in the State between 5 and 15 years of age,	16 59
Including in the aggregate above the expense of repairing and erecting school-houses, the sum is,	7,000,083 52
To each child in the State between 5 and 15 years of age, .	19 82
Percentage of valuation of 1886 appropriated for public schools, including only wages of teachers, fuel, care of fires and school-rooms, . . . . .	.002 $\frac{78}{100}$
Percentage of valuation of 1886 appropriated for public schools, including all the items in the last aggregate above,	.003 $\frac{78}{100}$
Number of academies,	74

Whole number of students for the year in academies,	9,437
Amount of tuition paid,	\$477,307 25
Number of private schools,	352
Whole number attending for the year,	28,941
Estimated amount of tuition,	\$394,651 00

ANALYSIS OF THE RETURNS.

The statistical returns from the towns and cities of the Commonwealth, as summarized above, show that the public schools have continued to make that steady growth which has characterized them for so many years.

The number of persons in the State between five and fifteen years of age has increased 4,149; the number of pupils of all ages in the schools has increased 3,744; the average membership of the schools has increased 2,899, and the average attendance, 2,071. The increase in the number of pupils over fifteen years of age is reported as 996. Although this is not equal to the gain of last year, it is gratifyingly large, being more than one-third of the whole increase in average membership. The number of very young pupils continues to diminish, 58 less being returned as under five years of age. It is a significant fact that during the last ten years the number of such pupils has decreased one-third. The increase in the number of schools is 119; in the number of teachers required for all the schools is 245. If both of these statements accord with the facts there is a reduction in the number of pupils intrusted to each teacher. This is a change in the right direction. The statutes say:—

In every public school having an average of fifty scholars the school district or town to which such school belongs shall employ one or more female assistants, unless such district or town votes to dispense with such assistant.

Fifty pupils is an excessive number for one teacher to control and teach, but the agents of the Board find many primary schools containing a larger number, sometimes as many as seventy or eighty little ones being crowded into a single room and in the care of a single teacher. Such schools cannot be good schools. It is gratifying to know that the school authorities are convinced of this fact, and by multiplying the schools are making the conditions for work more favorable.

The number of graduates of Normal Schools teaching in the public schools is 2,533, an increase of 113. While the number of normally trained teachers has increased from year to year, it has scarcely more than kept pace with the increase in the number of schools, so that the ratio of Normal graduates teaching to the whole number of teachers required has increased but one per cent. during the last three years. This ratio is likely to increase more rapidly in the future, as all the Normal Schools have this year admitted larger classes than ever before.

While the whole number of teachers employed has increased, the number of men reported as teaching has slightly diminished. The average monthly wages of the men has increased \$5.62. These facts taken together seem to show that the decrease has been in the number of cheap male teachers. Last year several men were found keeping school for twenty-two dollars a month. The more rapidly the number of such is diminished the better will be the schools.

The high schools continue to prosper. The number of these schools is 229, an increase of 5; the number of teachers, 701, an increase of 24; the number of students, 22,406, an increase of 1,036. Of these 229 schools 42 are kept by towns which are not required by law to keep them. The marked growth of this grade of schools is doubtless due in a large measure to the continued influence of the free text-book law.

In the evening schools but little change appears. Forty-one towns and cities maintain such schools. The average attendance has been 7,986, a slight falling off from last year. A decrease in the number of teachers employed shows that these schools are becoming better organized as their nature and needs are better understood.

The whole amount of money raised by taxation for the support of the schools was \$5,059,939.43, an increase of \$242,510.42. The amount received from all sources and expended for the schools, exclusive of money spent for erecting and repairing school-houses, was \$5,857,321.00, an increase of \$180,251.92, being equal to \$16.59 for each child in the State between five and fifteen years of age. The whole amount expended for all public-school purposes was \$7,000,083.52, equal to \$19.82 for each child of school age.

The sum expended for sundries including text-books and supplies has decreased \$63,513.15. This was to be expected, as the first cost of supplying the schools under the new law was necessarily larger than the average would prove to be. The towns are now approaching the average expenditure for this purpose. This is undoubtedly much smaller than the expenditure under the old system.

ACCURACY OF THE RETURNS.

In the last report committees were urged to greater care in the preparation of their school returns. In many cases the request has been heeded, and the returns are probably more nearly accurate than ever before. But complaints are still made by persons interested in the schools that the returns do not in all cases exactly represent the facts. Some discrepancies are found in the number of schools reported. The direction upon the blank forms is so explicit there would seem to be no excuse for mistake: "Each school, or department of a school, having a separate teacher, and required by the committee to keep a separate register, is to be regarded as a distinct school."

The ratio of attendance to the whole number of persons between five and fifteen years of age as reported is still in some towns improbably large. For example, one town reports the whole number of persons between five and fifteen as 127; the number of different pupils of all ages in all the schools during the year, 123; the average membership of all the schools, 213, and the average attendance based upon average membership, 177. There is evidently in this case a wrong method of computing the average membership. As this computation is usually made by the teachers, committees should call their attention to the directions contained in the register, explaining these directions if necessary, and no register should be accepted without careful scrutiny by the committee.

The ratio of attendance based upon the average membership shows fewer apparent errors than ever before. The range is much less wide. It is known that the methods employed in computing the attendance are not yet uniform. That they may become more uniform, the following suggestions are quoted from the fiftieth report:—

If the pupil gives notice on leaving that he is not to return for the term no absence should be recorded against him thereafter; he ceased to be a member on the day he left. If he re-enters, he should not be considered a member for the time he was in non-attendance. If no notice is given, however, the case is different. If he does not return at all, it would seem to be right and proper to consider that his membership ceased on his leaving school as truly as if he had given notice. But if he returns the case is not so clear. We would suggest that for the sake of uniformity the membership should be considered to have ceased at the end of one week of absence; that this absence be counted in the total of absences, and that the pupil's membership be renewed when he returns.

The returns of private schools are defective. The whole number of pupils in such schools during the past year is reported to be 28,941. From official sources it is known that there were 30,000 pupils in schools maintained by the Catholic church alone. The attention of committees is called to the direction numbered 37-42 on the back of the blank form for returns: —

In answer to these inquiries, give an aggregate of the average numbers for the year in all the academies and private schools, according to the best information obtained, and according to the inquiry, *including sectarian and denominational schools.*

In filling out the blank forms an answer should be given to every question. If there are no schools of a certain kind the word "none" or a cipher should be inserted, and this should be repeated for each of the following questions concerning teachers, pupils and money. Only as this is done is it evident that all the questions have received the attention of the committee.

SPECIAL INSTITUTIONS.

Massachusetts has taken the lead of the New England States in making the education of deaf children as free as that of hearing children. By a law passed in 1887 parents of deaf children are relieved from the necessity of declaring themselves unable to pay for the instruction of their children in the special institutions. The following is the text of the law: —

[Chap. 179.]

AN ACT TO PROVIDE FOR THE FREE INSTRUCTION OF DEAF-MUTES OR DEAF CHILDREN.

Be it enacted, etc., as follows :

SECTION 1. With the approval of the board of education the governor may send such deaf-mutes or deaf children as he may deem fit subjects for education, for a term not exceeding ten years in the case of any pupil, to the American Asylum at Hartford, the Clarke Institution for Deaf-Mutes at Northampton, or to the Horace Mann School at Boston, or to any other school for deaf-mutes in the Commonwealth, as the parents or guardians may prefer ; and with the approval of the board he may make at the expense of the Commonwealth such provision for the care and education of children, who are both deaf-mutes and blind, as he may deem expedient. In the exercise of the discretionary power conferred by this act no distinction shall be made on account of the wealth or poverty of the parents or guardians of such children ; no such pupil shall be withdrawn from such institution or school except with the consent of the proper authorities thereof or of the governor, and the sums necessary for the instruction and support of such pupils in such institution or school shall be paid by the Commonwealth : *provided, nevertheless*, that nothing herein contained shall be held to prevent the voluntary payment of the whole or any part of such sums by the parents or guardians of said pupils.

SECT. 2. Section sixteen of chapter forty-one of the Public Statutes and chapter two hundred and forty-one of the acts of the year eighteen hundred and eighty-six are hereby repealed.

SECT. 3. This act shall take effect upon its passage. [*Approved April 14, 1887.*]

The State has provided for the care and instruction of deaf children at the American Asylum in Hartford, the Clarke Institution in Northampton, and the Horace Mann School in Boston ; for the blind in the Perkins Institution in South Boston, and for the feeble-minded in the School for the Feeble-minded in South Boston.

The sums expended for these purposes during the year are :

For the deaf,	\$29,745 69
blind,	30,000 00
feeble-minded,	33,415 66

AMERICAN ASYLUM.

The seventy-first annual report of this school shows it to be in a flourishing condition. The average attendance for

the year was 160 pupils, of whom sixty-two were from Massachusetts. Solid progress marked the work of the year. The system of instruction is eclectic, embracing every means which experience under any and every system of instruction has shown to be valuable as an aid in reaching the minds of deaf pupils. Articulation and lip-reading are carefully taught by three special teachers, with results not less satisfactory than those obtained in "purely oral" schools. A degree of mental development is reached second to none given to deaf pupils of the same grade in any school; the written and printed page, pictures — both printed and extempore, pantomime and the manual alphabet, each and all bearing their part in the work.

In his report the principal endeavors to correct a false impression in regard to the part played by the sign language in the instruction of pupils in what are termed sign schools. He speaks as follows : —

But here let me protest against the impression so fixed in the minds of some people, and the conclusion so hastily drawn by others, that the sign language in schools under the combined or eclectic system of instruction occupies the greater part of the pupil's time. That certainly is not true in this school. Let me repeat for emphasis what I have said repeatedly, that we use signs — as a valuable aid, but only as an aid, as a most useful help in conveying ideas rapidly and fixing them clearly, that we may thus save time for the pupil to use in the expression of those ideas in written or spoken language, and that we may hold him to the clear expression of a definite thought in the English language. So long as there is no definite or clear idea there can be no clear written or spoken language.

The pupils of this school spend three hours a day in manual labor, and the boys so far master a trade that, with few exceptions, they are able on leaving school at once to earn living wages.

A new feature of school work has been the instruction of a boy who is blind as well as deaf. The boy was born deaf, and lost his sight from brain fever at the age of five years. He entered school October 14, 1886, at the age of twelve years. Without the knowledge of a single letter of the alphabet, and for seven years without sight, his knowledge was largely limited to objects which had been brought within the range of his touch.

The following extract describes the first steps pursued in the instruction of this boy : —

He was familiar with many objects which he had been accustomed to handle. From these a pin was selected and placed in his hand. Then he was made to spell with the manual alphabet, "p-i-n." His attention was again called to the pin, and again he was made to spell the word on his fingers. This process was repeated many times, always associating the object and the sign for it with the spelled word. Next, the word "hat" was given to him in the same way, and soon the word "box." To make variety in the exercise he was allowed, after feeling of the object, to write the name of it with a crayon on a wall slate with one hand while he spelled it on his fingers with the other. This exercise seemed to please and interest him, while manual spelling alone seemed to be very irksome to him.

The name of every object, which he learned by the manual alphabet, printed in raised letters, was pasted upon the object, or if the object was too small for that purpose it was attached to the printed label. Children's blocks in raised letters were also used in spelling out the objects. In these ways he learned to recognize readily sixteen letters on the alphabet-blocks, and to spell out six or seven words with the blocks. He also could recognize them when printed in raised type, and when given a word thus printed he would feel about for the object bearing a similar label.

The above steps had occupied five weeks, but in spite of the constant and varied presentation of these words and the objects which they represented the pupil had not taken in the idea that the printed, or spelled, word represented the object. One day it suddenly dawned upon him that the word stood for the object, and was not merely a duplicate of the printed word pasted upon it, and his discovery gave him great delight. From that time he made more rapid progress, adding new words, himself bringing objects frequently to his teacher and asking for their names. What before had seemed drudgery to him now gave him pleasure. Much time was now spent in practice with the manual alphabet to give the pupil facility both in using and reading it, and in reading words in raised letters.

By the sixth of December sixteen words in their various forms had been mastered. I quote from the teacher's diary on that day: "As he knew all the alphabet with the exception of three letters I thought I would teach him those. I gave him 'j.' Soon after I taught him a new word 'boy.' He was greatly displeased because there was no 'j' in it. He wished to use the new letter, and told me he wanted 'h-a-t-j.' I taught him 'jug,' which completely satisfied him."

Not until he had been in school nearly three months did we teach him the first verb, giving him the words "sit" and "stand" in contrast. He readily took in the idea, and from that time has added rapidly to his vocabulary. He now has at his command more than two hundred common words — nouns, verbs, transitive and intransitive, adjectives, and prepositions — which he can use in short sentences by the manual alphabet, or read either in the manual alphabet or embossed letters. Taking all the difficulties of the case into consideration we consider the progress made very gratifying.

CLARKE INSTITUTION.

The year ending August 31, 1887, has been one of more than average prosperity to the Clarke Institution. It began the year with 98 pupils and ended with 96 — girls 50, boys 48; in the primary department 52; in the grammar department 46; boarding pupils 96; day pupils 2. Of the whole number, 80 were from Massachusetts.

In no department of culture has progress been inferior to that of any former year, while in more than one department there has been a decided gain. Twenty-five of the older boys have been instructed in carpentry, cabinet work, and the seating of cane-bottomed chairs. Thirty pupils have received tuition in drawing, with very encouraging results. Numerous specimens of their products recently exhibited elicited much commendation. The girls have been initiated into light housework and sewing.

The Clarke Institution has been in existence twenty years, and the trustees in their report for 1887 give the following account of the work which the school has accomplished: —

The corporators being left to their own discretion as to methods of instruction determined to provide for the semi-deaf and semi-mute for whom there was no proper provision known to exist anywhere in this country, and so adopted the oral system. The instruction of these two classes, and the beginning of such instruction at an earlier period of childhood than was elsewhere practised, were their prominent aims. Benefit to the deaf-born was less contemplated though they were not excluded; and early experience with a few of these satisfied the managers of the institution that the oral system may well be employed with many of the congenitally deaf.

The success of the Clarke school has exceeded the most sanguine expectations of its founders, not only in the amount of patronage received, but in the results attained and in the wide-spread benefits of which it has been, at least in a large degree, either the direct or indirect cause. Modes of procedure in the school-room, at first necessarily experimental, have been changed, modified and improved from time to time until far better results are now attained than in earlier years.

The whole number of pupils who have completed the high course of study and received diplomas is nine. The number who have received certificates as having completed the grammar course is twenty-seven. The whole number who have received instruction for a longer or shorter period is 268.

But the amount of good growing out of the establishment of the Clarke School is not to be measured by the number of its pupils. The discussions that preceded and followed its organization, together with its early success, were not without their influence upon all the schools of the country. They served to awaken a new interest in the education of the deaf, and to breathe new life into the old system of instruction. The antagonism, jealousy, and distrust at first existing between the champions of the two systems gradually gave place to a sober second thought, to a reconsideration of former exclusive views, and finally, to a spirit of harmony and co-operation. The result has been that, while of the twenty-four schools existing in the country twenty years ago not one made any provision for articulation and lip-reading, of the sixty-six now existing only six fail to make some provision therefor, and seven are distinctively oral schools.

All this, besides improving the intellectual, moral, and industrial training in the schools, has had a cheering and invigorating influence upon the courage, self-respect and self-reliance of the more intelligent and sensitive of the deaf themselves. It has also served to elevate the deaf and speechless as a class in public estimation. The simple possession of four senses instead of five is no longer regarded by a majority of the public as degrading a child to the level of the imbecile and the pauper, and as making its education a matter of charity. There is also an increasing prevalence of a more refined and humane terminology respecting the deaf, and an increasing proclivity to call organizations for their instruction simply schools, and not asylums, nor by any designation which serves to emphasize their infirmity, and to perpetuate in the public mind a broad demarcation between deaf pupils and other pupils in respect to mental capacity and social status.

HORACE MANN SCHOOL.

The last school-year began Sept. 6, 1886, with 75 pupils, 36 of whom were boys and 39 girls. Ten additional pupils were admitted during the year and 10 pupils were discharged, leaving at the close in June, 1887, 75, or 33 boys and 42 girls.

These children have been taught according to methods repeatedly set forth in reports upon the school. The primary classes have been much assisted the past year by printed language lessons, which private contributions enabled the principal to provide.

Industrial training has been continued by sending classes to the North Bennett Street Industrial School and the Tennyson Street Cooking School, both of which are supported by private means. In the latter school girls have been instructed in cooking; in the Industrial School both boys and girls have been taught, some in type-setting and printing, some in shoe-making and some in carpentry.

An idea of the success of the school may be gained from the following extract from the last report of the committee having the school in charge:—

We have been much interested in the success of one of our pupils transferred to a private school in order that he might pursue higher studies there. One of his teachers recently described him as very intelligent and successful, quick in following the work of his class, and keeping abreast of all, and in advance of many studying with him. This is to be counted among the useful services of the Horace Mann School, as enabling those who leave it to carry forward their education on the same level with hearing students. All that this implies is not taken in without a moment's reflection on the courage, the self-respect, and other good qualities essential to it.

Another of our recent pupils has been successful in obtaining employment in a printing office, and in satisfying his employer. We quote, as more significant than our own words would be, from a note written to the principal by the master-printer: "I think he is quite smart for a beginner, and I do not experience so much difficulty as I have with some boys who had all their faculties. I think he will make a printer, and, if he sticks to it, a good one, in a comparatively short time. . . . Of course I have to consume considerably more time in communicating with him than with another, because I cannot talk with him and work myself at the same time;

but, taking things all together, I do not think I could find a much better boy to educate than he shows himself to be." This, also, is a happy result for the Horace Mann School, as it shows that a congenitally deaf boy may learn a trade from an entire stranger with no more difficulty than a hearing boy would experience.

The school makes itself dear to its pupils by the personal interest taken in them by their teachers, and shown by many kindly offices out of school. No mistake about the relations between the home and the school appears to be made here. They are recognized as entering very largely into the work of the school itself, and, far from being neglected, they are constantly maintained and extended, at whatever outlay of time or of forbearance they may demand. In this respect the school sets an example which might be more generally followed.

STATISTICS.

American Asylum.

Number of Massachusetts pupils Jan. 1, 1887,	. . . . .	53
" - admitted during the year,	. . . . .	7
" dismissed during the year,	. . . . .	9
" in the school Jan. 1, 1888,	. . . . .	51

Clarke Institution.

Number of Massachusetts pupils Jan. 1, 1887,	. . . . .	96
" admitted during the year,	. . . . .	13
" dismissed during the year,	. . . . .	14
" in the school Jan. 1, 1888,	. . . . .	95

Horace Mann School.

Number of Massachusetts pupils Jan. 1, 1887,	. . . . .	64
" admitted during the year,	. . . . .	16
" dismissed during the year,	. . . . .	11
" in the school Jan. 1, 1888,	. . . . .	69

AMOUNT EXPENDED FOR THEIR INSTRUCTION DURING THE YEAR.

Paid Clarke Institution.

77 pupils for quarter commencing Jan. 1, 1887,	\$3,337 50
78 pupils for quarter commencing April 1, 1887,	3,381 25
78 pupils for quarter commencing July 1, 1887,	3,433 75
77 pupils for quarter commencing Oct. 1, 1887,	3,243 75
	<hr/> \$13,396 25

Paid Horace Mann School.

62 pupils from Feb. 1, 1887, to July 1, 1887,	\$3,215 05
70 pupils from Sept. 1, 1887, to Feb. 1, 1888,	3,299 61
	<hr/> 6,514

Paid American Asylum.

50 pupils, quarter commencing March 1, 1887, . . .	\$2,393 75
53 pupils, quarter commencing June 1, 1887, . . .	2,350 00
50 pupils, quarter commencing Sept. 1, 1887, . . .	2,218 75
51 pupils, quarter commencing Dec. 1, 1887, . . .	2,306 25
Clothing furnished pupils for the year ending July 1, 1887,	280 03
	<hr/> \$9,548 78
A. H. Park, support of Edith Thomas,	250 00
C. P. Wells, support of Mary Wells,	36 00
	<hr/>
Aggregate amount expended during the year,	\$29,745 69

PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE
BLIND.

This establishment was founded for the instruction of those whose lack of sight deprives them of most of the ordinary methods of training which are addressed mainly to the eye. Its constant aim is to place the blind on a footing as nearly as possible equal to that of their fellows who can see. Started as a charitable effort to lighten the burden of ignorance and helplessness which were, half a century ago, almost the invariable adjuncts of blindness, it has grown in influence and importance until it is now a recognized feature of the educational system of the State, and its graduates are filling honorable positions in life.

The total number of blind persons connected with the institution in all its departments is 201. Of these, 183 are in the school proper, and 18 are in the workshop for adults.

The first class includes 171 boys and girls enrolled as pupils, 10 teachers and employees, and 2 domestics.

The second class comprises 13 men and 5 women employed in the industrial department for adults.

Number of Massachusetts beneficiaries,	95
“ adults belonging to Massachusetts,	25
“ blind persons belonging to other States,	81
	<hr/>
Total,	201

The corps of instructors consists of a director, eleven literary teachers, twelve music teachers with three music readers,

one tuning master with one assistant, and two instructors in handicraft with three assistants.

According to the annual report presented by the treasurer to the corporation the financial status of the institution may be summarized as follows :—

Receipts.

Cash in the treasury Oct. 1, 1886,	\$36,327 45	
Annual appropriation from the State of Massachusetts,	30,000 00	
Income from all other sources,	46,801 27	
Legacies and donations,	21,166 00	
Donations and contributions to the kindergarten fund,	20,408 77	
Collections of mortgage notes that fell due,	32,000 00	
	<hr/>	\$186,703 49

Disbursements.

Maintenance, superintendence and instruction,	\$45,080 70	
Kindergarten building, furnishing, insurance, taxes and repairs on property let,	22,423 73	
All other expenses,	10,007 55	
Investments,	106,163 04	
Cash in hands of the treasurer Oct. 1, 1887,	3,028 47	
	<hr/>	\$186,703 49

The crowning event of the year has been the inauguration of the kindergarten at Roxbury. This movement was started about five years ago for the purpose of beginning the training of blind children at an earlier age than that at which they can be admitted to the school at South Boston. Popular interest in the undertaking was gradually awakened, money was raised, an estate comprising about six acres of land located partly in Roxbury and partly in Jamaica Plain was purchased, and a commodious brick building large enough to accommodate thirty-three children with the requisite corps of teachers and assistants was erected.

In the establishment of this branch of the Perkins Institution and Massachusetts School for the Blind no aid has been asked from the treasury of the State. The entire amount has been raised by voluntary contributions and the proceeds of various entertainments, and the premises are wholly free from debt, although there is but little left to meet the current expenses of the school.

The kindergarten was incorporated as a part of the educational system of Massachusetts by an act of the Legislature dated March, 1887, which allows the Perkins Institution, on account of this new department, to hold property to the value of \$275,000 in addition to the amount then held by it.

On the 2d of May the school opened with ten children. Others have been admitted until there are now seventeen pupils between the ages of six and ten years. One of the latest admissions is that of Edith M. Thomas, the blind deaf-mute, whose case required the employment of a special teacher.

The following extracts, taken from the last report of the director to the trustees, give an idea of the variety and character of the work of the institution : —

The school has gone on usefully and prosperously in its career, and everything pertaining to the departments of government and instruction, of physical and moral culture, of music and of manual training, has been conducted with uniform harmony and with satisfactory results.

The facility of reading, both from the line type and the Braille, has been rapidly developed in most of the young beginners, and with constant care to clear, intelligent, agreeable enunciation, accent and modulation of the voice. The progress in arithmetic and algebra, including the working out of not too complicated problems upon their slates, with types, has been striking. So, too, in geography, with their quick, sure tact in finding places on their raised and their dissecting maps, and their recollection of the distinctive physical features, products, governments of each, the school has more than kept up its high reputation of past years ; while in studies that involve thought and tax the intellect, as well as cultivate the taste, like history, mental and moral philosophy, literature and science, the more advanced among them have shown how much may be and is done to place the blind upon an intellectual level with well-educated seeing people. In music the standard of attainment has continually risen both in chorus and in solo singing, in pianoforte and organ playing, and in the theory of music.

The care and attention bestowed on the department of physical training in our school have been during the past year as steady and as unremitting as ever. No efforts have been spared in carrying out and improving a series of intelligent, progressive, and to some extent, scientific gymnastics.

The art of tuning and repairing pianofortes has proved to be one of the most important branches of our system of training the blind to

useful occupations and of equipping them for the practical affairs of life, and the special attention which has long been paid to it in this institution has suffered no relaxation during the past year.

Industrial training was adopted in this institution at the date of its organization as a very essential part of our scheme of education, and it has proved to be one of the most effective agencies for placing our pupils in the conditions most favorable to mental and moral improvement and to the prospect of future independence, as well as one of the best means for enabling them to contribute their quota of endeavor towards the general well-being in which they share.

MASSACHUSETTS SCHOOL FOR THE FEEBLE-MINDED.

The following are the statistics for this school Sept. 30, 1887 : —

Number of inmates Sept. 30, 1886,	151
“ admitted during the year,	69
“ discharged during the year,	27
“ of inmates Sept. 30, 1887,	193
Average number of inmates during year,	179

The number present at the close of the year was classified as follows : —

Private pupils,	18
School beneficiaries of Massachusetts,	79
Custodial cases supported by State,	26
Custodial cases supported by cities and towns,	54
Beneficiaries of other New England States,	16

Below is our financial exhibit for the year : —

Receipts.

Cash on hand Sept. 30, 1886,	\$2,878 96
Cash since drawn from State treasury,	27,500 00
Cash received from all other sources,	31,288 87
Total,	\$61,667 83

Expenditures.

Investment and re-investment of funds,	\$2,174 84
Current expenses,	38,971 20
Purchase of land, unusual repairs, etc.,	18,392 90
Cash on hand Sept. 30, 1887,	2,128 89
Total,	\$61,667 83

In addition to the annual appropriation for the support of the school, the Legislature of 1887 made a grant of a sum not exceeding \$20,000 for the purchase of a more favorable site for the location of the school buildings. Accordingly, two estates in three lots, adjoining each other in the easterly part of Waltham, not far from the Waverly stations of the Fitchburg and Massachusetts Central railroads, and containing a little more than seventy-two acres, have been purchased for \$12,211.-98, with expenses of purchase amounting to \$647.15, making the total cost \$12,859.13.

NECESSITY OF PUBLIC SCHOOLS.

The ends to be accomplished by a free State are the development of the people and protection in the enjoyment of their natural rights. The effectual means to be employed for the accomplishment of these ends are public educational institutions and a popular government, neither of which can exist without the other. For the existence of a free State a common education of the people is necessary, that they may be trained to think alike and to exercise that common sympathy through which alone it is possible for human individuals to become a people. Burke says that "in a state of rude nature there is no such thing as a people. A number of men in themselves have no collective capacity. The idea of a people is the idea of a corporation. It is wholly artificial and made like other legal fictions by common agreement." A common agreement is the result of common thinking and common sympathy. The conditions of unity in thinking and feeling are public educational institutions where the young may be trained by common courses of study pursued in accordance with a common method.

Public schools, therefore, are necessary to the existence of a people in the true sense of that term, and especially to the existence of a free people who must labor together for common ends. But the existence of these institutions is impossible unless they are organized, controlled and supported by the State. For in no other way can a plan of instruction be made common and in harmony with the constitution of the State, nor universal and regular study be compelled, nor constant and ample means of support be provided.

The right, duty and necessity of establishing public schools, and making the use of them universal and compulsory under the direction of the State, become evident by the same mode of reasoning as would be employed to prove the right, duty and necessity of establishing the State itself.

The dissolution of a State has begun when any considerable portion of its citizens refuses to be educated into the spirit of its constitution and into sympathy with its important provisions. Loyalty to the State is shown in fidelity to those institutions which are adapted to make intelligent, loyal and virtuous citizens.

COURSE OF STUDIES FOR UNGRADED SCHOOLS.

There are in the Massachusetts public school system four grades of schools, known as Primary, Intermediate, Grammar and High Schools. These grades are distinguished by the topics of study introduced into each, and by the kind of mental activity required in pursuing the study.

The schools are graded when each of the four grades is instructed by itself in a separate room. They are ungraded when the different grades, two or more of them, are instructed together in the same room, or in classes whose members may differ in age and more or less in their attainments. From this it appears that each of the two kinds of schools in the system should have an organization of its own.

While the same method of teaching should be practised in both kinds of schools, their courses of studies must differ in some particulars to meet the wants of the different conditions of the classes.

The following course of studies has been prepared for our ungraded schools, with the hope that at least it will aid the school boards of the towns in preparing courses for their own schools.

ORGANIZATION OF UNGRADED SCHOOLS.

A serious hindrance to successful work in ungraded schools is a large number of classes. A large number of classes seems to make necessary many exercises during each daily session. Where there are many different class exercises in the day but little time can be given to each, and with but little time for an exercise, not much good teaching can be done.

Just as good teaching can be done in an ungraded school as in a school that is graded, and it can be done in the same time and in the same way.

It seems desirable, therefore, that an earnest effort should be made by the committees and teachers having these schools in charge to make the number of daily exercises small enough to make good teaching possible.

This may be accomplished in the following way : —

First, by uniting as far as practicable the classes in each subject.

The course of study is laid out for eight years of school attendance, but there are few schools in which all these grades of work are represented at one time.

By the use of supplementary reading matter, and by the topical method in other subjects, classes representing different grades may be brought together.

Second, by alternating the recitations of the older pupils in certain subjects. Thus the recitations in geography and history may occur on alternate days; so may physiology and grammar; writing and drawing may alternate. The reading exercises of the higher classes may alternate with each other.

Third, by frequent and regular substitution of written for oral recitations in most of the subjects. This will leave the teachers free for other classes, and the written papers can be examined out of school. Such exercises are of great value to the pupils themselves.

A written programme should be prepared as soon as possible after the beginning of the term. This should contain the order of exercises for each day of the week, and should indicate the time at which each exercise should begin and end. It should be placed where it can be read by the pupils, that they may be guided in their study. If rigidly followed by the teacher it will train the pupils to habits of promptness and punctuality.

MEANS OF TEACHING.

The following articles should be provided by the committee for the use of each school : —

Blackboards. — As much *good* blackboard surface as the size of the room will allow; blackboard cloth for extra surface for charts, maps, etc; a sufficient supply of good crayons,

erasers, and pointers. There should be a ledge or trough below the blackboard to hold the dust. This should be cleaned whenever the room is swept.

Closet. — A closet with lock and key for all text-books, supplies and apparatus. The condition of this property should be inspected at each visit of the committee.

For Reading. — Besides the regular series of readers a chart for the beginners, and one or more different readers of each grade, at least three copies of each; supplementary books for information; a large dictionary, a dictionary of biography, and a gazetteer.

For Writing. — Slates ruled on one side for the youngest pupils; spaced practise paper for the older pupils; good writing paper, pens and ink; means of sharpening slate and lead pencils.

For Arithmetic. — A low table for youngest pupils; blocks or other counters, splints, etc; numeral frame, foot-rules, yard-stick, measures of capacity, liquid and dry, toy money.

For Geography. — A globe, outline maps of the hemispheres and of the continents; a map of the United States, and one of Massachusetts; paper for map-drawing.

For Physiology. — Anatomical and physiological charts.

For Drawing. — Clay for modelling, geometrical forms, pencils, rulers, manilla and white paper, compasses.

LANGUAGE.

Pupils are to be trained to speak and write fluently and correctly. To accomplish this, daily exercises are needed throughout the course. These should be both oral and written.

Special oral language lessons should be a prominent feature of the first three years' work; in the subsequent years the other studies of the course will furnish copious material for training in the use of language.

Every school exercise should be a language exercise. No incomplete statements nor ungrammatical expressions should pass unnoticed by the teacher. By daily criticism the pupils should be trained to critical habits.

Teachers may be guided in the order of work, and in the choice of material and illustrations, by some of the many books

prepared as language lessons, but generally it is not best to put these books into the hands of the pupils.

The more formal study of grammar is introduced in the work assigned for the seventh and eighth years, but it would be better, if practicable, to delay its study even longer.

PLAN OF WORK.

First Year.

ORAL WORK: *Steps.* — First, lessons to accustom the pupils to talk freely and easily with the teacher. These should be about familiar things, as their pets and their plays.

Second, lessons to teach the *names* of things, as things in the room, parts of the house, parts of a book.

Third, lessons to teach the names of *actions*, as run, walk, creep, fly, sing.

Fourth, lessons to teach the *qualities* of things, large, small, long, short, rough, smooth.

Fifth, lessons on color. Memorizing gems of poetry.

Suggestions. — Cultivate pleasant conversational tones between pupils and teacher, and among the pupils.

Require complete statements in answer to questions.

In connection with the lessons on names, actions, and qualities, teach, one at a time and slowly, the following: To use *a* and *an*; the plurals of names; *is* and *are*, *was* and *were*, *has* and *have*; verbs with singular and plural subjects: The dog runs. Dogs run.

WRITTEN WORK: *Steps.* — Words and sentences copied from blackboard and cardboard slips. Name of pupil, of teacher, of school, of town.

Names of days of week, of month, of seasons.

Suggestions. — Each pupil should have a good-sized slate, ruled on one side, and a long, well-sharpened pencil.

The teacher should learn to write well on the blackboard to furnish a good model for the pupil.

Use capitals, and punctuate with period and question-mark.

Use both affirmations and questions. Use capital I.

Write pupils' names on cards for daily copying.

Second Year.

ORAL WORK : *Steps.* — Simple lessons on common plants, naming the plants, naming and describing the parts, number, size, color, arrangement.

Similar lessons on common animals, names, parts, covering, habits, etc.

Continue lessons on color.

Useful work for this year may be found by writing on the board several words, as snow, sled, boy, school, and requiring the pupils to invent stories using the words. Short stories may be read or told by teacher and repeated by pupils. These may be stories of good actions, and will be lessons in morals.

Continue recitation of memorized passages of poetry.

Suggestions. — In all lessons on objects present the object, lead the pupils by questions to describe it as a whole, its name, color, form, size ; then the parts, their names, qualities, and uses.

Encourage the pupils to relate anecdotes of plants and animals. Correct mistakes, and aim to secure connected and smooth statements.

In connection with these lessons, or in special ones, teach to use *this* and *that*, *these* and *those* ; to use one, two and three adjectives with nouns ; to use the prepositions *in*, *on*, *under*, *above*, *below* ; to use pronouns as subjects ; pronouns as objects of transitive verbs ; to use adverbs.

WRITTEN WORK : *Steps.* — Select work from the following : — Copying from blackboard and reader ; writing statements learned in the oral lessons ; stories made by pupils about familiar things ; stories read or told by the teacher ; dictation exercises, using the grammatical constructions which have been taught orally.

Suggestions. — Use both slate and ruled paper. Have much written work. Make each exercise short and have much variety.

Insist on neatness, correct use of capitals, periods and question-marks.

Introduce writing of possessive singular with apostrophe.

Use abbreviations Mr. and Mrs., and abbreviations of names of months.

Require pupils to write from *one dictation*.

Dictate most frequently those constructions in which the most mistakes occur. It is well to keep a list of common mistakes in spelling and writing.

Third Year.

ORAL WORK: *Steps*. — Continue lessons on plants and animals. Add minerals. Stories to inculcate kindness to animals, told or read by teacher and re-told by pupils. Stories from history and biography.

The lessons in geography and physiology will furnish material for oral language work. Continue recitation of memorized selections.

From this time onward the most of the oral training should be in connection with the regular studies of the course.

Suggestions. — Teach use of personal pronouns as subjects, alone and with a noun: "John and I went."

Use of personal pronouns as objects, alone and with a noun: "He told Mary and me."

Pronouns with *was* and *were*: "We were there."

Pronouns after *is* and *was*: "It is I."

WRITTEN WORK: *Steps*. — Continue same kind of work as in second year.

Introduce letter-writing, teaching from blackboard the form and arrangement of parts.

Copy prose and poetry from reader.

Suggestions. — Introduce in dictation exercises and in letters the abbreviations: Mr., Mrs., Hon., Dr., Rev., St., Mass. Have letters written first on slate, then correct, and have neatly copied on paper.

Explain use of quotation marks and hyphens as found in sentences copied.

Fourth Year.

ORAL WORK. — Continue daily oral lessons to teach right forms and constructions. Include forms and use of irregular verbs, as sit, lie, break. Use in different tenses and in active and passive voices.

Use forms of *who* in questions: "Whom did I see?"

Correct use of *who*, *which* and *that*.

WRITTEN WORK : *Steps*. — Continue dictation exercises to fix constructions, punctuation, capitals and spelling.

Use quotation marks and hyphens.

Continue letter-writing, teaching to fold letters, and to address envelopes.

Short written descriptions of objects, and short narratives of interesting events, as excursions, birthdays, etc.

Have written exercises in the regular studies of the course.

Suggestions. — The written description of objects should have the same order as the oral study, first the whole, its color, form and size, then the description of the parts, with their uses.

In the letter-writing the teacher should prescribe the subject and name the person to whom the letter shall be addressed.

All written exercises should be rewritten after correction.

Allow no careless work.

Fifth Year.

STEPS. — Continue work of fourth year. Add to the list of abbreviations. Teach to make out bills of merchandise.

Continue recitation of memorized selections. Select from prose and poetry, with reference to cultivating reverence, patriotism, love of nature, admiration of moral heroism.

SUGGESTIONS. — Train orally and by dictation exercises to correct habits in the use of *sit* and *set*, *lie* and *lay*, *shall* and *will*, *may* and *can*, *learn* and *teach*, *don't* and *doesn't*, *in* and *into*, *stop* and *stay*, *like* and *as*.

Sixth Year.

STEPS. — Continue dictation, letter-writing, bills for merchandise and for service.

Select subjects from geography, as letters from different parts of our own country, and from foreign countries. Allow study in preparation of these.

Teach to form compound and complex sentences.

SUGGESTIONS. — Select carefully several simple sentences, write them on board, and require the pupils to unite them into one sentence. Criticise faults, and have best sentence written on blackboard as a model.

Seventh Year.

STEPS. — Begin study of simple sentence, subject and predicate.

Teach parts of speech in following order: *noun* as subject; *verb* as predicate; *adjective* as modifying noun; *adverb* as modifying verb; *preposition* as connecting words; *conjunction* as connecting sentences; *pronoun* as used in place of noun; *article* as special kind of adjective; *interjection*.

Teach other uses of nouns. Teach forms of the different parts of speech and illustrate their use in sentences.

Teach rules for plurals and possessives and for comparison of adjectives and adverbs. Compositions written regularly on assigned subjects.

Business letters, applications for situations, answers to advertisements, receipts for money.

Declamations and recitations.

SUGGESTIONS. — Teach parts of speech by showing their use in the sentence. Illustrate with many sentences, and require pupils to find illustrations.

Show that the same word may be used in different ways: “*Light* comes from the sun.” “*Light* the lamps.” “The room is *light*.”

Require pupils to make sentences illustrating all changes in form.

Eighth Year.

STEPS. — Teach rules of construction; analysis of compound and complex sentences; and teach to arrange phrases and clauses in complex sentences, so as to secure clearness and strength. Continue compositions, declamations and recitations.

SUGGESTIONS. — Illustrate the construction by sentences on blackboard, and lead pupils to derive the rules from the illustrations.

Train the pupils to form their own judgments as to best arrangement of the parts of the sentences.

READING.

Good reading should be *fluent*, *natural*, and with *right use of the voice*.

To read fluently is to read easily and smoothly without hesitation or stammering. It depends on quickly recognizing the words and quickly seeing the whole phrase so as to get the sense.

The teacher can promote fluency by

1. Teaching phrases and sentences early instead of letters and single words.
2. Beginning with short and simple sentences, and proceeding slowly.
3. Introducing complex sentences very gradually, and taking great pains with them at first.
4. Much practice in easy reading.
5. Going back to an easier book if the one used is too difficult.

Naturalness consists in reading as one would talk if he were a speaker in the dialogue, or if he were describing the object or event.

Natural reading depends on right emphasis and inflection and the feeling in the tone. To secure natural reading the whole scene or event must seem *real* to the reader, and he must try to make it seem real to the listener.

If a pupil does not read a passage naturally it is because he does not understand it, or he is not thinking about it, or he does not care.

The teacher should first be sure that the reader knows what every word means. Second, he should awaken the reader's interest and force him, by questioning, to think about the passage until he sees and feels all there is in it.

To read naturally the pupil must not be afraid of teacher or classmates. The teacher should aim to have a pleasant, helpful atmosphere; he should avoid harsh criticism, should allow no laughing at mistakes, and should encourage each to do his best.

To secure the right use of the voice there should be daily practice. This should include exercises on the vowels to secure pure tone; on the consonants, especially on difficult combinations, to secure distinctness of utterance; on pitch and force; on emphasis and inflection; on pronunciation.

The teacher should show the pupils what good reading is that they may have in mind a correct standard. This can be

done by occasionally reading a whole selection to the school, and by reading short passages to illustrate special qualities of tone, or to express certain feelings. It is better not to read for the pupils the same passages which they are to read, but similar ones.

Throughout the course the teacher should strive for *quality* rather than quantity.

PLAN OF WORK.

First Year.

STEPS. — First, teach from blackboard, using only script hand, fifty or more words selected from first part of chart or First Reader. Begin at once to put these into sentences such as are found in the chart and reader.

Second, teach same words and sentences from chart. Then carry on blackboard and chart work together.

Third, begin First Reader. Teach new words in sentences first from blackboard, then have lesson studied before reading aloud.

Have a few words in each lesson “spelled by sound.”

SUGGESTIONS. — If class is large, teach it in small groups.

With the names of common objects use other words needed for sentence-making; as have, has, see, is, are, can; a, an, the, small, red, good; I, it, me, you; here, there, very.

Teach modifying words in phrases as, — *a ball, the hen, a red cow, very fast*. Insist on talking tone.

As far as possible present the object itself or a picture of it, using first the spoken name, then the written one.

If any pupils find difficulty in recognizing a word in its printed form, put both forms on board and read in turn the script and the print. Review all words many times, using old ones with the new ones. It is well to read the first half of several First Readers before completing any.

Have one exercise in studied reading and one in sight reading each day.

Second Year.

STEPS. — Read last half of First Reader and an Advanced First.

Begin drill on the elementary sounds.

SUGGESTIONS. — Teach both form and meaning of new words from blackboard. Drill on them in sentences, having but one new word in each sentence.

In phonic drill avoid exaggerating the consonant sounds.

Third Year.

STEPS. — Read Second Reader, one or more. Continue sight reading from separate books kept by the teacher for the purpose.

Continue phonic drill and analysis.

Continue to teach meaning of all new words before lesson is studied.

SUGGESTIONS. — For sight reading it is not necessary that each pupil should have a book. Secure attention of those who are without a book by requiring them to tell the substance of the passage read. Train pupils to read *to* the class. That all may hear and be read to, arrange the class in a circle or square, not in *long lines*.

A brief, familiar talk about the lesson should precede the first reading.

Insist on phrasing, and on natural tones.

Fourth Year.

STEPS. — Use several Third Readers, or other selected reading of same grade.

SUGGESTIONS. — Read but little poetry. Occasionally have one pupil read a whole selection which he has studied for the purpose.

Fifth Year.

STEPS. — Use an easy Fourth Reader, or an Advanced Third, with supplementary reading of same grade.

Begin to teach pupils to criticise each other's reading.

Teach how to use the dictionary for meaning and pronunciation of new words.

SUGGESTIONS. — The criticism should not be of faults alone, nor of trivial slips, as, "He said *a* for *an*," but of excellencies and defects in some of the essential qualities, as distinctness, rapidity, pitch, modulation, expression.

This practice in criticism should continue throughout the course.

From this time onward require all geographical names and names of distinguished people to be found in the proper books of reference.

Sixth Year.

STEPS. — Continue use of Fourth Reader. Read poetry. Drill on vocal exercises in first part of book.

SUGGESTIONS. — Encourage pupils to practise vocal drill and reading aloud at home in preparation for class reading.

Seventh and Eighth Years.

STEPS. — Use Fifth Reader for studied work. Elocutionary drill on selected pieces.

Sight reading from other books, papers, and magazines.

SUGGESTIONS. — The older pupils may be called on to read some studied piece to the whole school.

An admirable means of training in reading and at the same time interesting the pupils in authors and literature, is to mark the anniversaries of the birthdays of authors by having read and recited selections from their works. The different educational publications contain outlines of such exercises.

SPELLING.

First Year.

At first the spelling exercise should consist only of copying from the board the words used in the reading lessons. Later, when the names of the letters are known, oral spelling of words in the reading lesson may be given.

Second Year.

Oral spelling continued. Words copied from blackboard, afterwards written from memory, alone and in sentences, from dictation.

In writing from dictation, if a pupil is not sure of the spelling of a word let him leave a blank rather than write by guess.

Third Year.

Oral and written spelling. Words selected chiefly from reading lessons.

Drill on those short common words which are most frequently misspelled. Among such are which, whose, where, there.

their, piece, lead-pencil, believe, through, laughed, father, ought, dozen, sugar, color, eight, Wednesday.

Fourth to Eighth Years.

Use spelling book and reader. Spelling chiefly written, and on spelling blanks, or in books kept for the purpose.

SUGGESTIONS. — In oral spelling have pupils pronounce whole word before spelling. Have syllables separated by a pause, or by pronunciation. Allow but one attempt at a single word.

In all written spelling give especial attention to the following points: Use of capitals; the apostrophe in possessives; words pronounced alike but spelled differently; as to, too, two, buy, by, flour, flower; abbreviations.

Words for spelling should be dictated distinctly, and but once.

Sometimes dictate the words *in phrases* without capitals; as, “in the desert,” “a pair of scissors.”

Group words belonging to special subjects, as ships, cooking, sewing, farming, sports and games.

Group names of articles, as of furniture, of foods, of common animals and plants, of fruits and flowers.

Special lessons on geographical and historical names.

Select a word, as *parents*, and have pupils form as many words from it as possible; first, words beginning with *p*, then with *a*, and so on.

In written spelling the slates or papers may be examined and marked by the teacher, or by one of the pupils, or by the pupils after exchanging papers, or each pupil may mark his own, the correct spelling being read by the teacher.

In all cases words misspelled should be rewritten correctly.

Review lessons may be made up of words that have been misspelled. The length of the spelling lesson should be determined by the difficulty of the words and not wholly by the number of them.

WRITING.

Special instruction and training in penmanship should continue throughout the course.

First Year.

STEPS. — While the pupils are learning to copy words and sentences they should also be learning to make the single letters. Teach them in the following order,— i, u, v, w, x, n, m.

SUGGESTIONS. — Make the copy on the blackboard in the presence of the pupils. Have blackboards ruled for the purpose. Pupils should have ruled slates and long well-sharpened pencils. Keep pupils at work upon each letter until they can make it well. At first give attention to the form of the letters rather than manner of holding the pencil, but at the beginning and always insist upon an erect position of the body, with both feet firmly upon the floor in front. If a pupil is occupying a seat too high for him, change him to a lower one, or provide some support for the feet.

Second Year.

STEPS. — Continue small letters in following order, — o, e, c, r, s, a, d, p, t ; with capitals, A, N, M, E, C, P, B.

SUGGESTIONS. — Continue practice upon slates, and also use ruled paper and lead pencils. The spaces should be narrower than during the first year.

During this year it may be practicable to introduce tracing-books with pen and ink. As soon as ink is used each pupil should be provided with a blotter and a pen-wiper. Good ink should be provided, and great care exercised to keep it in proper condition for use.

Third Year.

STEPS. — Complete small letters and capitals. Teach each letter from the blackboard. and drill on practice paper.

Use No. 1. Copy-books. Give attention to position of body, arm and fingers.

SUGGESTIONS. — Give attention to height, slant and spacing of letters. Drill class together on practice paper by count. In copy-books allow individual work but no hurrying.

Fourth to Eighth Years.

STEPS. — During the remainder of the course carry on the following work : —

a. Copy-book practice.

b. Movement exercises in concert, using paper, to secure free use of arm, hand and fingers. Illustrate movement first on blackboard, and have class work by count.

c. Teach carefully the elements of the letters and train the pupils to criticise the height, slant, spacing and shading of the letters, their own and others.

d. Have occasional practice in writing sentences and paragraphs copied or from dictation, as tests of penmanship.

SUGGESTIONS. — The drill on movements and on the elements of the letters should be in concert. The copy-book work may be individual.

The older pupils should have regular exercises in penmanship at least twice a week, the younger ones more often.

Every written exercise should be an exercise in penmanship, no careless writing being allowed to go unnoticed.

Pupils should not be allowed to leave a lower copy-book for a higher one until they can do the work of the lower one well.

During the first part of the course in writing *legibility* is the chief aim, but before the pupils leave school they should be able to write both *legibly* and *rapidly*. The pencils and pens used for the writing exercises should be kept by the teacher and distributed at each exercise.

ARITHMETIC.

First Year.

STEPS. — Teach by means of objects the numbers from one to ten.

Teach all the combinations in each number.

Teach to express the numbers by figures.

Make little problems using these combinations and teach the pupils to make similar ones.

Teach to add in columns, sum not to exceed 10.

Teach to subtract on board and slate, minuend not greater than 9.

Teach, — $\frac{1}{2}$ of 2, 4, 6, 8, 10.

$\frac{1}{3}$ of 3, 6, 9.

$\frac{1}{4}$ of 4, 8.

Teach Roman numerals to X.

Teach signs $+$ $-$ \times \div $=$ for convenience in blackboard work.

SUGGESTIONS. — Teach each number and all the combinations involved in it before proceeding to the next higher number. Thus: teach *two*, first as a whole by showing two objects; then in succession, one and one, two ones, two less one, two ones in two.

Teach each number in combination with each smaller one, as, —

one and two,	three less one,	threes in three,
two and one,	three less two,	ones in three,
one three,	three less three,	one-third of three.
three ones,		

Drill first with counters, then without.

When the pupils have learned to *five* with the help of the teacher, they should have learned the order, and be able to make the combinations in the larger numbers alone, and to invent little problems illustrating them: “I had seven apples and ate two,” illustrating the separation with counters.

For counters, blocks are best, but any convenient objects may be used.

The teaching can best be done by gathering the pupils about a table on which their counters are placed. Each pupil should have enough counters to make all the combinations.

If the class is large, teach but a part at a time, so as to secure the closest attention from every one. More can be accomplished in five minutes with all attentive than in fifteen with a part inattentive.

When the combinations with objects seem to have been thoroughly learned, drill on the same combinations without objects.

When the use of the signs has been explained, drill work for slate practice may be placed on the blackboard, as follows: —

$2 + 1 =$	$3 - = 3$	$1 \times = 3$	$3 \div 1 =$
$+ 2 = 3$	$3 - 1 =$	$3 \times = 3$	$3 \div = 3$
$1 + 2 =$	$3 - 2 =$	$\times 3 = 3$	$\div 1 = 3$
$+ 1 = 3$	$3 - 3 =$	$\times 1 = 3$	
$1 + = 3$		$3 \times 1 =$	
$2 + = 3$		$1 \times 3 =$	

If the pupils are not sure of a combination require them to re-learn it with their counters.

Aim first at *accuracy*, then at *rapidity*.

Train to make figures neatly.

Second Year.

STEPS. — Teach numbers to 20, all combinations in each.

Add by twos, threes, fours, and fives to 20.

Subtract by twos, threes, fours, and fives from 20.

Halves, thirds, fourths, fifths, tenths, of numbers to 20.

Problems involving the use of these numbers, first, with one operation, second, with more than one.

Column addition, sum not to exceed 20. Addition, subtraction, multiplication and division tables to 20, to be made by pupils.

Teach ordinals to twentieth. Roman numerals to XX.

SUGGESTIONS. — In teaching numbers from 10 to 20, teach the ten as one group, one ten and one, one ten and two, etc., two tens.

Use numeral frame.

Splints and wooden tooth-picks are useful, as they can easily be made into bundles of ten.

Teach the fractional parts of the numbers by counters, as $\frac{1}{3}$, $\frac{2}{3}$, $\frac{3}{3}$ of 12.

Teach to make multiplication tables in following form : —

$3 = 3$	1 three is 3
$3 + 3 = 6$	2 threes are 6
$3 + 3 + 3 = 9$	3 “
$3 + 3 + 3 + 3 = 12$	4 “

Make table many times before memorizing.

For rapid drill work such forms as the following may be kept on the blackboard, or on paper charts : —

3	2	1	4	5	6	7	8
+2	4	5	3	4	3	5	2
—	—	—	—	—	—	—	—
4	3	6	5	7	8	9	
—3	2	4	2	3	5	4	
—	—	—	—	—	—	—	

	2	2	2	2	2	2	2	2
$\times 3$	2	1	8	4	6	5	7	9
	—	—	—	—	—	—	—	—
2) 2	6	14	10	8	12	18	4	
	—	—	—	—	—	—	—	—

Combine multiplication with addition as, — three fours and one, three twos and three.

Divide with remainders, as — threes in ten.

Third Year.

STEPS. — Teach tens to 100. Express by figures.

Teach tens and units to 100. Express by figures.

Teach hundreds, tens, and units to 1,000. Express by figures.

Teach to add and subtract by tens.

Teach to add and subtract between the tens, as $3 + 4$, $13 + 4$, $23 + 4$.

Teach to add and subtract from one ten to next, as, $7 + 5$, $17 + 5$, $27 + 5$.

Teach to make multiplication tables to 12×12 .

Teach to add by twos, threes, fours, etc., to 100.

Teach to subtract by twos, threes, fours, etc., from 100.

Teach easy problems involving these combinations.

Teach fractions of numbers to hundredths.

Teach to express tenths and hundredths by figures.. Illustrate by cents and dimes.

Teach Roman numerals to C.

Teach written addition, subtraction, multiplication and division, numbers not to exceed 1,000.

Use multipliers and divisors less than 12.

Teach coins to dollar.

Teach liquid and dry measures. Long measures.

SUGGESTIONS. — Use numeral frame and bundles of splints for tens. Show that the figure representing the number of tens is always written in the same place. Here show use of decimal point, and always write it.

Group the tens in bundles and add the units, as two tens and one, two tens and two, etc. After teaching and writing as far as 40, require pupils to form and name the numbers of

the next group, then to express them. Require pupils to read the next group from teacher's figures and to express the numbers with splints. Continue to 100.

Make bundle of ten tens for 100. Show hundreds expressed in third place.

Show by a few groups how numbers above 100 are formed, as, — one hundred, two tens, and five ones, then require pupils to read numbers to 1,000 and to explain their formation, thus: 473 is four hundreds, seven tens, and three ones.

Pupils should learn the measures of length and capacity by seeing and using them. They should have much practice in measuring the length of objects in and about the school-house, and they should be taught to *estimate* lengths and distances. As fast as the units of measure are learned they should be used in problems.

Fourth Year.

STEPS. — Addition, subtraction, multiplication, and division not to exceed 10,000. Multipliers and divisors larger than 12.

Add in columns United States money, dollars and cents.

Much oral work in combination. Problems from books, blackboard and cards.

Teach fractional parts of one to twelfths.

Change integers and mixed numbers to fractional numbers and the reverse. Oral.

Units of avoirdupois weight and time.

Roman numerals to M.

SUGGESTIONS. — To secure independent work and to prevent copying assign different examples and problems to different pupils.

Use the drill tables in the text-books for this purpose, and have a great variety and number of examples in all subjects written on numbered cards, with the answers in a book kept for the purpose.

Blackboard work in arithmetic should not be concert work.

Use objects to teach fractional parts of one. Something which can be exactly divided. Sticks a foot long with the divisions marked plainly and cardboard circles cut carefully into the different fractional units to twelfths are useful means of illustrating fractions. There should be much oral practice in changing fractions.

Practise in making change by using toy money if this is provided. If not, use bits of paper or cards marked to represent the coins to one dollar. Always make change by *adding*, thus: 27 cents from a half dollar, $27 + 3 + 10 + 10 = 50$.

Train the pupils to analyze their problems and not to depend on the teacher to explain them. Do this by selecting simple problems and having the steps in the work written out in detail.

Illustration: If a man has \$200, and buys a horse for \$75, and a harness for \$32, how much money will he have left?

Pupil's Work.

\$75 = cost of horse.

\$32 = cost of harness.

\$75 + \$32 = cost of both.

\$107 = cost of both.

\$200 = money he had at first.

\$200 — \$107 = money he had left.

\$93 = money he had left.

A few problems so worked are more helpful than many worked with the aid of the teacher.

Fifth Year.

STEPS. — Reading and writing numbers to billions, and decimal fractional numbers to thousandths.

Fundamental operations thoroughly reviewed.

Use decimal fractions to thousandths in addition and subtraction, and in multiplication and division by integers.

Express fractional numbers by figures. Addition, subtraction, multiplication and division of fractional numbers having the same name: $\frac{2}{7} + \frac{3}{7}$, $\frac{7}{9} - \frac{2}{9}$, $\frac{2}{11} \times 4$, $2\frac{2}{5} \times 3$, $\frac{10}{11} \div 5$, $\frac{8}{9} \div \frac{2}{9}$.

Prime numbers and factors of numbers. Square and cubic measures. Make practical problems in measuring surfaces in the school-room and school-yard, and in finding contents of rooms, bins, boxes and piles of wood.

SUGGESTIONS. — In all work with fractions use small numbers.

Teach square inch, foot and yard by means of cards or black-board diagrams.

Have pupils find by trial how many of each kind of units in the next larger, and make the tables.

Pupils should be able to explain by diagram how to find the area of surfaces. Avoid such expressions as "feet by feet gives square feet."

In practical problems have the pupils make their own measurements.

Sixth Year.

STEPS. — Keep up practice in fundamental operations and in such oral work as is found in books on mental arithmetic.

Continue work in fractions in following order: —

1. Change of name, as, —

{	halves to fourths, eighths, etc.	}	<i>a.</i> by multiplication.
	thirds to sixths, ninths, etc.		<i>b.</i> by division.

2. Change to common name.

3. Add and subtract fractions having different names.

4. Multiply by dividing denominator.

5. Divide by multiplying denominator.

6. Fractional part of integers and mixed numbers.

7. Division of fraction by fraction with different name.

Decimal fractions, — multiplication by, division by. Change of decimal fractions to common fractions. Change of common fractions to decimal fractions.

SUGGESTIONS. — If the class is studying from a book in mental arithmetic the recitation should not be of problems previously studied, but of similar ones given by the teacher. This will test the pupil's power to think better than memorized solutions.

In work in fractions let oral work precede written work throughout. In written work keep the denominators small. Drill on each operation with a multitude of examples with small numbers.

Seventh Year.

STEPS. — Compound numbers. Review all units previously learned and add Troy weights, circular measure.

Operations on compound numbers.

Fractional parts of 100, $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{6}$, $\frac{1}{8}$, $\frac{1}{10}$.

Percentage (without time).

Teach as hundredths and apply not only to money but to all kinds of units.

Change per cents. to common fractional parts. Find per cents. as common fractional parts, as, — 25 % of 30 = $\frac{1}{4}$ of 30.

SUGGESTIONS. — Secure freedom in working in percentage by training on such examples as the following before applying to problems: Express $\frac{1}{4}$ as per cent.; 20 % as a common fraction; 4 % as a decimal fraction.

Use in examples different ways of expressing per cent., in the following order: $\frac{4}{100}$, .04, 4 per cent., 4 %.

Use other kinds of units before applying to United States money, as, — 6 % of 250 books, pens, horses, men, dollars, and in all drill work use a variety of units.

Train pupils to select the shortest method of work, as, — 20 % of \$5 = $\frac{1}{5}$ of \$5. Have much oral work with small numbers.

Eighth Year.

STEPS. — Application of percentage without time; profit and loss, commission.

Interest, simple and compound.

Discount, $\left\{ \begin{array}{l} \text{business,} \\ \text{bank.} \end{array} \right.$

Ratio and proportion as applied to partnership.

Reviews.

SUGGESTIONS. — In using a book of problems the teacher should be sure that the pupils understand the language in which the problem is stated. Problems growing out of business transactions, as in commission, banking, taxes, insurance, often contain technical terms. These should be explained before the lesson is assigned.

A useful practice is to require pupils to make problems introducing common business transactions.

Specimens of all business papers talked about should be shown, and the pupils should be taught to write notes and orders. The essential parts of such papers should be carefully taught.

A few of the most important principles connected with commercial papers should be taught. Among these are the negotiability of notes, the liability of endorsers, the use of bank checks. Teach also the nature of bank-notes and the various kinds of paper money issued by the government.

GEOGRAPHY.

First Year.

Lessons preparatory to the study of geography may be given in the second year of school attendance.

STEPS. — 1. Teach directions N., S., E., W., and N. E., N. W., S. E., S. W.

2. Oral lessons on the seasons, on the winds, rain, snow, ice, sunrise, sunset, the sun at noon, kinds of soil.

3. Observation of some of the most prominent natural features of the neighborhood, — hills, valleys, mountains, springs, brooks, rivers, ponds, lakes, kinds of land, cultivated or woodland, pastures, fertile, sterile.

4. Observation of the relation of these objects to one another, — springs, brooks, ponds and rivers to one another; brooks, ponds and rivers to hills and valleys; springs and brooks to rain and snow fall.

SUGGESTIONS. — The N. and S. directions may be taught by means of the shadow of an upright stick at noon. A compass should also be used. Until the directions are fixed in the mind they may be marked on the floor, or by a line overhead, or by cardboard letters hung upon the walls. Pupils should be trained to tell the direction of prominent objects from the school-house and from each other.

Select two well-known objects a mile apart to give an idea of a mile, and train to estimate other distances.

The aim of the oral lessons is to train the pupils to observe and think, to use good language in expressing their thoughts, and to gain ideas which will enable them to read the text-book intelligently.

The most profitable way to train the children to observe these things is to go with them, and show them what to see.

Second Year.

The lessons of the second year should be on *home geography*,

STEPS. — 1. Lessons to learn, and state the facts. 2. Lessons to represent by a map those which can be so represented.

The following are the most important facts to be learned : —

The surface, level or elevated, which prevails?

The hills, direction of slopes, slopes steep or gradual.

The streams, source, banks, branches, mouth, direction and rate of flow ; work of streams, wearing and carrying.

The soil, fertile or sterile, where the most is?

Ponds, lakes, bays or oceans ; the shore, projections and indentations ; islands.

The weather ; what winds bring rain and snow, heat and cold, wet and dry?

Plants and animals of the town good for food, shelter or clothing.

Industries of the town, what? and what they produce? What is done with products?

Roads and railroads, use of.

Different villages in the town, reasons for location.

While the study of the facts is progressing teach idea of a map,—

1. By plan of school-room on blackboard, with location of principal objects.

2. Plan of school-yard with house.

3. Map of neighborhood, with roads and buildings.

4. Map of town as extended as study has been, representing position and relative direction of the natural features. Train pupils to draw such maps, to locate objects, and to describe as they draw.

SUGGESTIONS. — The names of the various natural objects, as hill, valley, island, should be introduced as needed, but no definitions should be required.

Pupils may be taught to express their idea of geographical objects by drawings on the blackboard, and by moulding in sand.

Third Year.

The study of geography proper should begin with the fourth year in school. The work for the year may be as follows : —

STEPS. — 1. The earth as a whole ; shape ; surface of land and water ; rotation, axis, poles, equator, hemispheres ; lighted by sun, day and night ; hot parts, cold parts, temperate parts ; oceans and continents, name, and place in hemispheres ; principal productions, animal and vegetable of hot, cold and temperate regions ; races of men.

2. Each continent separately, from map ; its form and comparative size ; external waters ; principal peninsulas, capes and islands ; principal mountains and rivers ; productions, races, countries, great cities.

3. Oral lessons on states of society, governments, and religions.

SUGGESTIONS. — Precede the study of the earth as a whole by conversations designed to draw from the pupils what they have seen or heard or read of the world outside of the town in which they live.

Present idea of earth by means of a globe. Illustrate rotation, axis and poles. Teach oceans and continents, and means of communication, from the globe. Teach minor features from the maps of the hemispheres. Teach pupils to observe apparent motion of sun; place of rising and setting at different seasons; distance from horizon at noon; length of day and night.

Oral lessons on town government.

Fourth Year.

STEPS. — 1. *Study North America.* Review form, size, bordering waters, islands, peninsulas and capes.

Study carefully, —

- a.* Great surface features, highlands and lowlands, mountain systems, ranges and slopes, plateaus and plains.
 - b.* Great drainage systems, and relation to highlands and lowlands.
 - c.* Varieties of soil and their location.
 - d.* Varieties of climate and their location.
 - e.* Great product districts, animal, vegetable and mineral.
 - f.* Races of men and their location.
 - g.* Countries and their capitals.
2. *Study United States as a whole.*
- a.* Locate in continent.
 - b.* Boundaries.
 - c.* Natural features of the continent found in United States, surface, drainage, soil, climate, productive districts.
 - d.* Principal cities.
 - e.* Means of communication, railroads, canals, water-routes.
 - f.* Government.
 - g.* Divisions, states, territories.

3. Oral lessons to show the uses of rivers, the effect of soil and climate on productions, the connection between productions

and population, the causes of the location of cities and of their growth.

SUGGESTIONS. — In the study and recitation of the lessons on continents and countries, map-drawing should be constantly practised. At first the outline may be traced or copied, but before learning the study of any division the pupils should be able to draw the outline from memory; to represent on the map all the natural features which have been studied, and to locate by name the varieties of climate, the principal products, and the cities.

As the lesson is studied from the text-book each pupil should have on paper an outline map upon which he may represent the facts as he learns them; this will tend to fix them in the memory. A similar outline should be on the blackboard, and at the recitation the same facts should be represented on it. The best review is a memory map of all the facts learned.

The maps need not be artistic or elaborate, but should be correct.

Fifth Year.

STEPS. — 1. Study United States by sections, using the following topics for each: —

- a.* Location of section in United States.
 - b.* States comprised in the section.
 - c.* General character of surface, soil and climate.
 - d.* Chief industries.
 - e.* Leading products; exports.
 - f.* Capitals and principal cities.
2. Special study of Massachusetts, using following topics:—
- a.* Location in United States and in New England.
 - b.* Boundaries.
 - c.* Comparative size and population.
 - d.* Natural features, surface, rivers, soil.
 - e.* Natural advantages for agriculture, commerce, manufacturing, fishing.
 - f.* Chief industries, where located and why; exports.
 - g.* Counties and cities, location and industry.
 - h.* Railroads.

SUGGESTIONS. — Besides a globe and the maps of the continents, there should be in every school-room a map of the United States and one of Massachusetts.

No State maps except the map of Massachusetts need be drawn by the pupils.

Variety in recitations may be secured by written exercises ; by narrating imaginary journeys, naming the route travelled and describing the country, its features, and productions ; also by letters from various parts of the country.

Sixth Year.

STEPS. — 1. Study British America and Mexico. Use same topics as in study of United States.

2. Study latitude and longitude, topics and polar circles, zones, change of seasons.

3. Study South America ; topics as in North America.

4. Study Europe ; topics as in North America.

5. Study countries of Europe ; topics as in United States.

SUGGESTIONS. — In studying foreign countries comparison should constantly be made with our own, in size, latitude, climate, people and productions.

Vary exercises by written descriptions of imaginary voyages and travels.

Much use may be made of the newspapers by having the places mentioned in the news and shipping columns located by the pupils, and by having the articles named in the lists of imports and in the market reports referred to the country where they were produced.

In teaching longitude the effect of difference in longitude upon time should be shown, and the meaning of the term, “ standard time ” as used in our own country explained.

Seventh Year.

STEPS. — 1. Study Asia, Africa, Australia and principal Pacific islands.

2. Review United States, comparing it with other countries in population, wealth, learning, government, religion, state of society, productions, natural and artificial. Its commerce with other countries, how carried on, over what routes, what it gives and what it gets.

If pupils remain longer in school the principal facts in physical geography should be taught.

HISTORY.

Work in history should be done with each of the three sections into which the school is divided for the study of physiology. See page 100.

Section I.

Use the language exercises and those in home geography to awaken an interest in historical subjects and to prepare the way for more formal study.

Describe historical events, and relate striking incidents in the life of famous persons. Select especially examples of heroism and self-sacrifice for their country or for their fellow-men.

Use public anniversaries, as the Fourth of July and Washington's Birthday, to give historical information.

Require all stories to be retold either orally or in writing. Have it understood that this work is not for entertainment but for instruction.

In connection with the study of home geography refer to the early history of the town, the first settlers, who they were, why they came, in what part of the town they lived, how they lived, their houses, schools, industries, their neighbors the Indians, interesting historical events and local traditions.

As far as possible illustrate these facts by pictures and such relics of the past as the neighborhood may afford.

Section II.

Read through and review a small outline history of the United States as supplementary to the Third and Fourth Readers.

Question the pupils upon these as upon other reading lessons. Train to search for information and to arrange it by the use of topics and questions. For example, — Spanish explorers. who? what? when? First settlements in the colonies, where? when? by whom? why? Have the facts grouped under these questions.

The facts thus arranged may be put into sentences, oral and written, and thus be used in language training.

Make lists of famous men and have pupils gather as much information concerning them as possible. Have this written.

Section III.

Begin the formal study of history with the first section as one class. Use a fuller text-book than that used for reading by section II.

Assign lessons by topics and not by pages in the book. Do not allow the words of the book to be memorized.

Require pupils to illustrate the progress of discovery and settlement by maps of their own making. Use maps also to trace the progress of military campaigns.

Describe but few battles in detail, among these Quebec, Bunker Hill, Saratoga and Yorktown. Draw plans to show position and movement of troops. Make biography prominent.

Require but few dates to be memorized.

Impress upon the pupils that the study of history is the study of the *growth* of the country and the *causes* of that growth.

Teachers will find topical outlines in the best text-books. The following schemes may be found useful in the study of a war, and of a single campaign, as Braddock's or Burgoyne's.

Plan for study of a war : —

1. Parties ; 2. Cause ; 3. Occasion ; 4. Elements of strength and weakness on each side ; 5. The campaigns ; 6. The result ; 7. The consequences.

Plan for study of a campaign : —

1. Plan : —

- a.* Objective point, what? why?
- b.* Route, what? why?
- c.* Forces and commanders.
- d.* Advantages and difficulties.

2. Movements ; 3. Decisive battle ; 4. Result ; 5. Consequences.

It is suggested that in the final review the events be grouped under a few topics, as in the following outlines : —

1. How America became known to Europeans? Northmen? Spaniards? Dutch? English?

2. The English settlers, —

In New England, in middle colonies, in southern colonies, who they were, why they came, how they lived.

3. The French in North America, —
Territory acquired, what and how, loss of territory.
4. The Revolution, —
Taxation, resistance, Declaration of Independence, the war, State constitutions, the Confederation, the Constitution.
5. Extension of territory and settlement, —
Settlement of Kentucky and Tennessee, settlement of the Northwest, the Louisiana purchase, the Florida purchase, settlements west of the Mississippi, annexation of Texas, Mexican war, settlement of Pacific coast, settlement of the Southwest.
6. Slavery, —
Introduction, extent, beginning of opposition, abolition in North, agitation in Congress, Missouri compromise, fugitive slave law, Kansas-Nebraska act, formation of political parties, secession, civil war, extinction of slavery, reconstruction.
7. The Indian tribes, —
Location at time of European settlement, habits and character, relation to English settlers, treatment by United States government.
8. Useful discoveries and inventions.
9. Growth of industries.
10. Changes in the life of the people.

PHYSIOLOGY AND HYGIENE.

For convenience in teaching physiology and hygiene the school may be divided into three sections: the first section comprising the classes on the first four years' work; the second comprising the next two classes; and the third comprising all above these.

Section I.

STEPS. — The work of the first section should be oral, and the following order is suggested: —

1. EXTERNAL PARTS OF THE HUMAN BODY. Pupils name and touch.
 - a. Principal parts, — head, neck, trunk, upper and lower limbs, right and left.

- b.* Parts of the head, — crown, hair, ears, face ; parts of the face, — forehead, temple, cheeks, chin, eyes, brows, lids, lashes, nose, nostril, bridge of nose, mouth, lips.
- c.* Parts of the neck, — throat, nape, sides.
- d.* Parts of the trunk, — chest, breast, back, shoulders, sides, abdomen, waist, hips, sides.
- e.* Parts of the arm, — upper arm, elbow, fore-arm, wrist, hand ; parts of hand, back, palm, thumb, fingers, nails.
- f.* Parts of the leg, — thigh, knee, shin, calf, ankle, foot ; parts of foot, instep, arch, heel, ball, toes, nails.

SUGGESTIONS. — In connection with these lessons on the parts of the body teach in a simple way the proper care of the hair, eyes, nose, mouth, nails, feet.

Tell of the effects of alcohol and tobacco on the mouth, teeth, lips, eyes, and on the carriage and movements of the body.

Lead the pupils to compare the corresponding parts of other animals with the human organs, as the fore-leg of the dog and horse, and the wing of the bird with the human arm. Lead them to notice the parts of the leg of the horse and cow and compare with the corresponding parts of the human leg.

2. THE SENSES ; the organ of each and its care.

a. The sense of Touch, — the Skin.

Teach by simple experiments that we can feel with any part of the body, but most delicately with the tips of the fingers and the tongue. Show that calluses and dirt diminish the delicacy of touch.

b. The sense of Sight, — the Eyes.

Teach the pupils to discover in their own eyes and in the eyes of others the ball, the white, the iris, the pupil ; show which part is the colored part and how to name the colors ; show how the pupil of the eye adapts itself to the amount of light ; teach the use of the lids, lashes, brows, tears, winking ; the motions of the eyes ; the care of the eyes.

c. The sense of Hearing, — the Ears.

Explain the use of the outer ear, and teach enough of the structure of the inner ear to show how it should be cared for.

d. The sense of Taste, — the Tongue.

Teach by experiment that we taste substances only when they are dissolved by saliva. Call attention to the effect of burning the tongue on the sense of taste. Show how hot food and drinks, pepper, mustard, spices, tobacco and alcohol diminish the delicacy of taste. Teach flavors, bitter, sweet, saline, acid.

e. The sense of Smell, — the Nose.

Teach the uses of smell, in determining good food, pure air, etc. The effects of colds upon the sense of smell. The scent in animals compared with the smell in man.

SUGGESTIONS. — In teaching these lessons on the senses dwell upon their uses. Show how much pleasure we derive through them, and how careful we should be to do nothing to injure them.

Tell how acute the senses may become, as in the Indian.

Speak of the unfortunate people who are deprived of sight and hearing, and awaken pity for them.

3. GENERAL STRUCTURE OF THE BODY.

Skin, muscles, tendons, fat, nerves, bones, blood-vessels, union of parts by joints and ligaments.

Teach the use of each of these parts.

The pupils may be led to distinguish these structural parts in their own bodies, and they may learn many of the qualities of the parts by observing the corresponding parts of animals prepared for food.

4. HOW WE LIVE.

a. Food; its uses to repair waste, for growth, for warmth, quality and quantity.

b. Air; its use and quality.

c. Exercise; what it does, kind, time, amount.

d. Sleep; its use, amount.

e. How alcohol and tobacco interfere with healthful living.

SUGGESTIONS. -- It is not intended that the pupils shall be taught in these lessons *how* food, air, exercise, and sleep build up the body, but only the fact that they do so build. Abundant illustrations should be used to impress the points.

Section II.

The proper work of the second section would be the study of the three great nutritive systems, the digestive system, the circulatory system, and the respiratory system.

STEPS. — The order of teaching should be as follows : —

1. The principal organs composing the system, the name, and place of each in the body, and their connection with one another.

2. The work of each system and the part which each organ performs in this work.

3. The connection of these systems with one another.

4. The effect of stimulants and narcotics upon the work of each.

SUGGESTIONS. — In teaching the *digestive system* trace the food from the mouth through the stomach and intestines to the blood-vessels. Show the necessity of proper mastication, of proper time for digestion, and for the removal of undigested matter from the body.

Do not attempt to describe in detail the changes in the food. Use simple language.

In teaching the *circulatory system* trace the movement of the blood from the heart back to the heart. Carefully locate the main arteries in the arms and legs in order that the pupils may know where to apply a compress to check the flow of blood from wounds.

Show where to find the pulse and to count its beats. Show necessity of keeping extremities warm. Evil of tight boots, and of all clothing so tight as to impede the circulation.

In teaching the *respiratory system* show the size of the lungs when fully inflated. Teach to breath so as to fill the lungs. Show necessity of erect position in standing and sitting that the lungs may have room.

Explain effect of colds upon the lungs and the need of protecting the chest and back by warm clothing.

Show the effect of tight clothing to crowd and displace all the vital organs and to produce disease.

Show that if any one of the vital processes is imperfectly performed all the others will be defective.

Section III.

The higher classes may profitably use a text-book, and, following the order of topics in the book, may review the work of the preceding years.

Useful lessons may be given to the older scholars on such subjects as the care of the sick; the treatment of wounds, burns and frost-bites; stopping the flow of blood from severed arteries; the treatment of persons rescued from drowning, and of those who have swallowed poisons.

Lessons might also be given on the poisonous plants in the neighborhood.

SUGGESTIONS. — The means of illustrating the lessons in physiology are : —

a. The pupils' own bodies.

b. Parts of animals prepared for food; bones, joints, ligaments, muscles, fat, membranes. These the pupils can see at home; some may be brought to school.

c. Parts of animals obtained from the butcher, as the eye of an ox, the heart and lungs of a sheep.

d. Dissection of small animals. By this the relative position of the organs is shown and the connection one with another.

e. Anatomical charts prepared for school use.

f. Blackboard diagrams.

Great pains should be taken to make all the lessons simple, to avoid many details, to teach carefully a few things and to impress these upon the memory.

The aim is to make the pupils *thoughtful*, but not *fussy*.

INDUSTRIAL DRAWING.

First Year.

Conversation lessons on COLOR AND FORM. *Sphere, cube and cylinder* studied *as wholes*, and moulded in clay. Mould also simple objects based on them.

From these type forms teach the *details of form*, — plane and curved surface, face, straight and curved lines and point. Begin representing these details : —

I. POINTS. — Their positions, centre, top, bottom, left side, right side and the four corners. Develop ideas of distance, — 1 inch, 2 inch, etc.

II. LINES. — Horizontal, vertical, oblique. Teach the meaning of bisect. Draw on slate and blackboard.

In *Design* arrange colored sticks to represent simple objects, and to illustrate repetition.

In *Color* teach black, white, yellow, red, blue, etc.

Second Year.

Continue *form lessons*, studying square prism, cone, pyramid, etc. From forms and objects teach : —

II. LINES. — *Kinds*: straight, curved. *Positions*: horizontal, vertical, oblique. *Relations*: parallel, perpendicular, inclined. *Color*: light, dark.

III. ANGLES. — Right, acute, obtuse. Draw objects and figures containing the above. Give dictation exercises on lines and angles.

Use slate, blackboard and manilla paper.

In *Design* arrange tablets and sticks to illustrate repetition and alternation, in borders and centres.

In *Color* teach orange, green, purple, and tints; pink, straw, lemon, etc. Combine lessons on language number and drawing.

Third Year.

From pyramids, triangular prisms and objects based on them, teach : —

IV. TRIANGLES. — Right angled, isosceles, equilateral, and terms base, altitude, vertex.

V. SQUARES. — Diameter, diagonal.

VI. OBLONGS. — Construct these forms by cutting them from paper. Make *Freehand Geometric Drawings* of these forms, and objects and figures based on them. Construct objects from the drawings, using paper, wood, etc.

Give frequent exercises in drawing from memory; and dictation exercises, containing the figures studied.

In *Design* use geometric forms of colored paper, making arrangements to illustrate repetition, alternation, symmetry and repetition over a surface.

In *Color* teach the names of all the common colors, and cultivate a taste for beautiful combinations of color in designs, etc.

Fourth Year.

Review thoroughly the work of previous years. From hemispheres, cones, cylinders, and objects based on them, teach : —

VII. CIRCLE, *and its parts*. — Semi-circle, quadrant, circumference, diameter, radius, arc, chord. Construct the plane figures by cutting from paper. Make *Freehand Geometric Drawings* of these forms, and objects and figures containing them, and then combinations with figures previously studied. Construct objects from the drawings, using suitable materials. Continue dictation and memory exercises.

In *Design* use paper geometric forms, both simple and modified, illustrating repetition, alternation and symmetry. Teach principles of contrast, variety and harmony.

Study harmony of color, strive to obtain beauty of proportion and outline in the units of design.

Fifth Year.

From models and objects teach : —

VIII. ELLIPSE. — Long diameter, short diameter, foci.

IX. OVAL.

X. COMPOUND AND REVERSED CURVES. — Construct the plane figures by cutting from paper. Make *Freehand Geometric Drawings* of these forms, and objects and figures based on them. Construct objects from the drawings, using suitable materials. Encourage home drawing from objects. Continue dictation and memory exercises.

In *Design* sketch natural plant forms, — leaves, buds and flowers. Conventionalize them, cut the forms from paper and use in making designs for borders and centres. Study principles of growth, contrast, harmony. Study quality of line and beauty of proportion.

Sixth Year.

From models and objects teach : —

XI. HEXAGON.

XII. PENTAGON.

XIII. OCTAGON.

XIV. SPIRAL. — Construct by cutting from paper. Make *Freehand Geometric Drawings* of these forms, and objects and figures based on them, including natural vegetable forms, shells, etc. Construct objects from the drawings where practicable. Continue dictation and memory exercises.

In *Design* sketch plant form from nature; conventionalize; study main lines and principles of growth, unity, variety, and harmony. Designs may be applied to the decorating of simple objects, as penwipers, book-marks, card-cases, etc.

Seventh Year.

From the square and triangular prisms, cube, cylinder and common objects based on them make *Freehand Working Drawings*, illustrating plane and elevation, and two or more views combined, mark dimensions; make sketches of simple objects at home, mark dimensions and afterwards draw accurately, using a ruler to obtain correct size and straight lines.

Construct objects from drawings, from spherical objects, circles, cylinders and cones; make *Freehand Perspective Drawings* illustrating effects of foreshortening and distance.

In *Design* make bi-symmetric arrangements, using geometric inclosing forms, main lines and conventionalized plant form. Study growth, contrast, repose, harmony and tinting by means of lines.

Eighth Year.

From the cone, pyramid, and objects based on them and other forms, make *Freehand Sketches and Working Drawings*, mark dimensions, draw to scale, make developments of square and triangular prisms, cube and other simple forms construct of paper. With these for models make *Freehand Perspective Drawings* illustrating foreshortening and the convergence of retreating parallel lines, make drawings from simple rectilinear objects based on these forms.

In *Design* make balanced arrangements, using geometric inclosing forms, main lines and conventionalized plant form. Study to make graceful, well-balanced forms. Make designs for such objects as pencil-sharpener, match-safe, etc., and construct.

NORMAL SCHOOLS.

The condition of the Normal Schools has been quite fully reported by their visitors.

The importance of these institutions is becoming more fully appreciated as the improved methods of teaching by their graduates becomes better known. The evidence of this truth is found in the large and increasing numbers attending the Normal Schools and in the increasing demand for Normal teachers.

New school buildings are needed at Westfield and Framingham, and larger accommodations are required at Bridgewater.

Teachers, like all other professional people, acquire skill by experience in the practice of their art.

An application of the principles of instruction illustrates the principles themselves. Each of the Normal Schools should have a practice school included in its own organization, that the methods and practice of teaching and school government may be illustrated by living examples. By such means skill may be acquired through a personal experience in teaching and governing.

It is recommended that the practice schools be so organized as to furnish instruction in the methods of the kindergarten. This seems to be necessary for two reasons:—

1st. That the graduates of the Normal Schools may be prepared to conduct kindergarten instruction.

2d. That the kindergarten spirit may pervade all their work in the public schools.

It seems to be necessary that the practice schools referred to be so organized as to be under the control of the Normal Schools,

It is desirable that the instructors in the Normal Schools keep themselves constantly familiar with the work and spirit of the public schools.

This is necessary that the instruction in the Normal classes may not become too theoretical and abstract, and that the Normal graduates may not find as they enter upon their work that they have been preparing for a state of things which proves to be a creation of the imagination.

This danger will be averted to a great degree by the free use of practice schools, but not altogether, for a public school must

differ in many important respects from a practice school. The advantages of experience in general and independent management will be wanting in the latter that will be found necessary in the former. The Normal Schools of the country are always in danger of making their exercises more academical than professional. The necessity for this will disappear as the standard for admission is raised year by year, and the philosophy of teaching is better understood.

Statistics.

YEAR BEGAN IN SEPTEMBER, 1886, AND CLOSED IN JUNE, 1887.	FOR THE YEAR.	
	Number of Students.	Number of Graduates.
Bridgewater,	234	63
Framingham,	143	39
Salem,	294	54
Westfield,	149	27
Worcester,	258	42
Total,	1,078	225
Normal Art School,	154	12
Number receiving certificates,		60

INSTITUTES.

Institute work for the year has been conducted largely with the school committees and teachers in the small towns. About eighty of these towns were selected, divided into three groups, and assigned to three agents, each taking one group as his field of labor.

The inspection of the schools has been thoroughly made for the purpose of learning the character of all the school exercises and the progress of the pupils.

Particular attention has been given to methods of teaching, to the selection of the means used, to the construction and condition of the school buildings, and to the nature and condition of the school grounds. The registers of the schools have been carefully examined with reference to the regularity of attendance. It has been considered quite important to have members of the school committee accompany the agents in their inspection, that they may see together whatever is worthy of commenda-

tion or of criticism. After the schools of a town have all been examined in this way, and the teachers called together, a familiar discussion has been conducted upon topics suggested by the facts observed by the agent and committee during their visits. This affords a good opportunity for commending to the whole body of teachers of the town whatever in their work has been found to be commendable, and of giving valuable instruction on whatever has been found to be imperfect. Criticisms made by an intelligent observer on that which he has himself observed are generally more definite, just and practical than those made by one who supposes a case and then proceeds to approve or condemn.

In closing their work with the schools of a town the agents have been accustomed to invite the people to an evening exercise, in which the subjects taken up relate to the importance of giving to the schools a generous support, of employing skilled teachers, of sending the children regularly to school, of maintaining well constructed and furnished school houses, and of providing an efficient school supervision. Experience has proved that this sort of personal work in the schools is producing good results. It is an approach to supervision, with this difference, that supervision by local agents may be more systematic, constant and conducted with a more complete knowledge of the condition of the schools.

In addition to work done in the individual towns four State teachers' institutes have been held : —

WHERE HELD.	Towns Represented.	Attendance.
Becket,	Becket, Middlefield, Hinsdale, Chester, Washington,	60
Ipswich,	Ipswich, Essex, Rowley, Wenham, . . .	31
Ayer,	Ayer, Groton, Pepperell, Townsend, West- ford, Fitchburg, Leominster, Shirley, Acton, Harvard, Clinton,	212
Athol,	Athol, Orange, Royalston, Templeton, Gardner, Erving, Petersham, Dana, Phil- lipston, Warwick, New Salem, . . .	93

INSTITUTE TEACHERS.

J. W. Dickinson : Principles of Teaching, Province of Public School.

George A. Walton : Penmanship, Reading, Languages.

John T. Prince : School organization.

George I. Aldrich : Languages, Reading, Arithmetic.

Arthur C. Boyden : History, Elementary Science.

Miss Elvira Carver : Language, Geography, Elementary and Scientific Course.

J. C. Greenough : Principles of Teaching.

Isaac F. Hall : Language and Penmanship.

Joseph G. Edgerly : English Grammar.

Rev. A. D. Mayo : Evening lecture, subject "Does education pay."

The people of the towns where the institutes were held provided for them in a generous manner, showing their good will to the public schools.

It being desirable to make the institutes as practical and useful as possible, school children representing the different grades of pupils in the public schools were introduced for the purpose of illustrating the most approved method of teaching and of recitation.

In connection with these illustrative exercises a plan of topics on the various branches was presented and explained, together with the best known means of illustration. The members of the institute were greatly interested in the theory and practice of teaching which were exhibited to them, and expressed the opinion that the illustrative method employed by the different teachers was admirably adapted to a complete understanding of the subjects which they endeavored to teach. The teachers' institutes furnish opportunities for observing the practice of the most successful teachers. They stimulate the members to renewed effort in improving their work. They magnify the importance of the public school by presenting in an effective way the important ends which well-conducted school exercises are adapted to promote.

It is recommended that a larger number of State institutes be held in connection with the more personal work now carried on in the individual towns.

AGENTS OF THE BOARD.

The agents of the Board have so organized their work in the towns as to make it personal, thorough and effective. Their methods have been described already under the topic Institutes. Mr. A. W. Edson was appointed agent of the Board Oct. 6, 1887. He entered upon his work in November, and by the earnestness and ability already shown by him in the discharge of the duties of his office he has established the wisdom of his appointment.

Mr. Henry T. Bailey, a graduate of the Normal Art School and late director of drawing in the public schools of Lowell, has received the appointment of agent for the introduction of industrial drawing into the public schools of the State. Mr. Bailey seems to be thoroughly competent to do the work of his office. Industrial drawing is a compulsory study. It is an important branch of learning, as it is the best means of introducing the industrial element into our system of instruction. Mr. Bailey has a carefully prepared course in drawing for the schools, and he desires opportunities for presenting it in the most effective way to the teachers in the Commonwealth.

The other agents of the Board are well-tried servants of the State, and their noble service seems to be appreciated by the people whose public-school interests it is the great object of their service to support. In the Appendix will be found an account of their work.

SUPERINTENDENCY.

There are now in the Commonwealth about sixty school superintendents employed to give their entire time to school supervision. Four of these gentlemen have each charge of the schools of two towns. The work of supervision, in the best sense of the term, is most important. It is the condition of the employment of the best teachers, and of furnishing them with the means of doing the best service. This being a universal truth, the introduction of efficient supervision into every system of public instruction is a necessity.

The statutes provide that the management of the schools shall be under the general direction and control of the school

committees. An intelligent management implies a knowledge of what a good school is, and the possession of all those accomplishments which contribute to producing such a school.

The supervision of schools is special work. No one can perform it well without a special preparation. Knowledge, skill and experience must all enter into the preparation. These are indispensable requisites, and for their thorough application the supervisor must devote his whole time to the duties of his office. The schools of the towns suffer in proportion to the inefficiency of their supervision. This is in accordance with reason and the facts. A careful and extensive examination of the schools reveals the fact that wherever there is no special supervision the results which they produce are small in amount and poor in quality. This is a criticism upon the supervision but not necessarily upon those who are elected to perform it. They are not generally faithless nor wanting in a spirit of generous self-sacrifice. They may use all the knowledge of school matters which they have the opportunity to obtain, and more time than their own private affairs can spare, and yet make a poor selection of teachers, prepare a defective course of studies, pay no attention to methods of teaching, fail to provide the proper means of teaching, and neglect to keep the school houses in a safe condition and to collect all the children of school age into the schools.

The results produced by schools thus organized and directed are sometimes alarming. Their pupils on examination often show that they have been left to spend the precious hours of their brief school life in idleness or in an aimless search after knowledge or any of the other products which the schools should produce. The State may make laws requiring schools to be supported, and the children to attend them, but not until it has provided for competent school supervision will the schools be likely to produce satisfactory results. By the offer of State aid the small towns should be encouraged to form themselves into convenient districts for the support and employment of union superintendents. This step should be made the beginning of reform and progress in the small towns in the Commonwealth.

EXAMINATION OF TEACHERS.

The number of teachers employed in the public schools during the year is 9,729. Section 28, chapter 44, of the Public Statutes provides that "the school committee shall require full and satisfactory evidence of the good moral character of all teachers who may be employed; and shall ascertain by personal examination their qualifications for teaching and their capacity for the government of schools." Section 29 of the same chapter requires every teacher of a town or district school, before he opens such school, to obtain from the school committee a certificate in duplicate of his qualifications, one of which shall be deposited with the selectmen before any payment is made to such teacher on account of his services.

"No person can legally enter any public school in the capacity of a teacher until he has received from the school committee a written certificate of his qualifications therefor."

Any moneys paid to any person by the town treasurer on the ground of services performed as a teacher, "without first receiving one of the duplicate certificates which the committee are required to give, are paid by said treasurer without the authority of law, and he will still remain liable to the town for the sum, as though no payment had been made." "It is an open question whether a teacher without a certificate has a legal right to control a school or to exercise any of the prerogatives of a teacher. If he should attempt to enforce his rules by the use of corporal punishment, it is held by good authority that he could not defend himself from fine or damages in a prosecution for assault and battery."

There are two important reasons for the examination of every public school teacher before he enters upon his term of service. First, that the schools may be protected from the work of incompetent teachers. Second, that the teachers and town authorities may be protected from the loss of money due for services rendered, or for money paid out without the authority of law.

Very many of the teachers now employed in the public schools have not been examined by either school committees or their agents, the superintendents, and have no certificate of qualification.

School committees should turn their attention to this subject and make such a change in the administration of the duties of their office as will comply with the law.

They must be satisfied by a personal examination that the teacher has a good moral character, that he is competent to give instruction in all the branches taught in the public schools, that he has the capacity to govern his school, and that he knows how to behave himself and is inclined to do in all places and at all times as well as he knows.

ATTENDANCE.

The public statutes require every child of school age to attend school for at least twenty weeks every school year. It is one of the important duties of the school committee to execute this law. They should make themselves sure that all the school children under their care are enrolled and are belonging to the schools. At the time of visiting the schools the registers should be examined that all the facts relating to attendance may be known. The teachers should also keep the committee informed of all cases of continued absence that they may direct the truant officers in the discharge of their duties. A wise and earnest teacher can accomplish much by his personal influence towards securing a perfect attendance. This influence may be exerted indirectly by teaching in such a way that the pupils will be interested in their school exercises. If this interest can be excited the attendance will take care of itself, unless the parent or guardian interferes. This interference is unnatural and in this Commonwealth not to be expected. Whenever a case of this kind appears it should receive the prompt and faithful attention of the school authorities. The children of school age must be in school. By the returns of last year, and by the examination made of a large number of schools themselves, it is found that the average attendance is far below the average membership.

Irregular attendance injures both the absent and the school, and should be prevented for the good of both. Parents should remember that not only may the provisions of the law be violated by detaining the children from school, but that their highest good may thus be sacrificed. The school life of the child is a very brief period of time to spend in acquiring the

knowledge and training necessary to enable him to take good care of himself, and to perform in the most intelligent way the duties of a free citizen. No part of it should be lost through either the negligence or greed of parents, or through the indifference of the child himself, or on account of the inefficiency of school authorities. Section 16, chapter 44, provides that "the resident ministers of the gospel, the selectmen and the school committees shall exert their influence and use their best endeavors that the youth of their towns shall regularly attend the schools established for their instruction." It would be better if the statute had included every citizen in its provisions, for duty to individuals and loyalty to the State require every one of its members to use his best endeavor that all the youth go regularly to the public schools.

RECITATION.

There are two modes of conducting recitations.

1st. By questions, to which are expected appropriate answers.

2d. By the use of the topical method, in which the pupil is called to make an independent illustration and explanation of a topic assigned him.

The question and answer method is faulty in many ways.

1st. It does not require the learner to obtain a comprehensive and well arranged knowledge of the subject of the lesson. The questions that are usually satisfied with direct answers relate to particulars that often have no apparent relation to one another. Such an exercise does not require any logical arrangement of its parts either by the teacher or the pupil, and both may pass along without a knowledge of the subject as a distinct whole.

2d. The questions frequently contain or suggest the answer. In such cases the teacher does the work of teacher and pupil.

This takes away the stimulus for study, and the disciplinary effect produced by an independent expression of knowledge.

3d. Questions may frequently be answered by a simple yes or no. Unless the one reciting is required to construct complete propositions his exercise will not cultivate facility in the use of language.

The use of the topical method requires the teacher to make out a complete set of topics on the different subjects included in his course of studies. The oral teaching recommended does not consist in lecturing or explaining but simply in presenting the objects of knowledge and directing the learner to the best method of thinking of them. The pupil having passed over his lesson under the direction of the teacher is prepared for private study. When the recitation hour arrives the class is expected to be prepared to take up the topics assigned and illustrate and define the knowledge that has been gained. This should be done without questions or aid of any kind by the teacher. Questions may be asked at the close of the recitation for the purpose of correcting mistakes or for teaching new truth. After the recitation by the class is over a new set of topics may be presented as before for an advanced lesson.

The advantages of this method of recitation are important. It requires the use of a correct method of teaching. It directs the pupil to the best way of learning his lesson. It requires his mind to exert an independent activity in illustrating what he knows. It prepares him to direct his own studies and conduct after he leaves school. It is recommended that teachers of the public schools master this method of conducting their exercises, and that they practice it as literally as possible.

WORK OF THE PUBLIC SCHOOLS.

There are apparently three ends which should be pursued in the public schools.

One is the acquisition of useful knowledge.

Another is the right training of the faculties.

The third is a practical understanding of a method which shall direct the activity of the mind in acquiring knowledge and development.

No one of these three ends will ever be fully accomplished in the brief period of ordinary school life, but every intelligent child, by the right sort of instruction, may be put in the way of them all.

In the discussion of this topic it should be clearly shown in the first place that useful knowledge, a cultivated mind, and a right way of using it, are the ends to which the schools should direct their attention.

Knowledge may be useful in two ways.

1st. It may be useful by containing the elements or the occasions of other knowledge. A knowledge of the facts of natural objects, of numbers, of language and of the operations of the mind, is useful in containing the elements and the suggestions which prepare the mind for general and scientific truth relating to these things.

2d. Knowledge may be useful as the occasion of the right exercise of the mind, such an exercise as will add to its original state a facility in performing its various operations.

Knowledge may be useful but never an end. It is always to be used for something else. "Did the Almighty," says Lessing, "holding in his right hand Truth, and in his left hand Search after Truth, deign to tender me the one I might prefer, in all humility, but without hesitation, I should choose Search after Truth."

This he said because he knew that the activity implied in "Search after Truth" is inseparably connected with mental development (as a cause is related to its results), and that right mental development is a good in itself and therefore an end.

Knowledge must be acquired as a means to an end.

Method has reference to a way of exercising the powers of the mind.

In so far as the acquisition of knowledge is concerned there are said to be two methods. One takes up all objects of thought first as integral units, and then, by the analytic process brings before the mind parts and attributes in their order and shows the relations which they sustain to one another.

This process presents the right occasions for clear, distinct and comprehensive ideas, which are the necessary elements of thorough knowledge. Its use is slowly working a reform in the teaching of all subjects presented in the schools, both in their elementary and scientific relations.

There is another method the reverse of this. It turns attention first to the elements and parts of things. It assumes that the mind has the independent power of forming the wholes which they compose. This method has done much towards banishing the true objects of knowledge from the schoolroom,

and substituting words for things, and lecturing by the teacher for independent study by the pupil.

If a child by his school exercises becomes familiar with the true method of using his powers he has accomplished a much more important result than can be found in the knowledge he has accumulated. Method is useful as it may direct the mind to truth and to a development of itself, but, like knowledge, it must look to something beyond itself for a measure of its value.

This something is that state of the mind in which it has the ability to think so as to discover the truth, to feel the pleasure or pain which the truth is adapted to excite, and to choose the best ends. By proper mental exercises this state can be added to the mind and become a part of itself. It is therefore an end, and to this end all exertion of mental power in school should be directed. If this end is secured all subordinate ends will be included. All necessary things are possible to a cultivated mind.

The work of the public school, then, is to direct the minds of the children to such forms of activity as will produce the best development. This is what the highest good of both the individual and the State requires. Whatever, therefore, is necessary for the development of the child as an individual or as a citizen of the State may be introduced into the public schools and its pursuit made universal and compulsory.

If this direction is observed the children of the common schools will not be required to turn their attention to any exercises that have for their end a training for special places in life. Whenever this is done the course adapted to produce general intelligence will be disturbed. The element called common will be eliminated from public instruction and compulsory laws will become arbitrary and unjust.

The results to be secured by what may be called the disciplinary schools are radically different from those that are to be pursued under special instruction. The former direct our attention to the individual himself; the latter to what the individual may be prepared to do with things outside himself. We desire to know of the boy who is about to complete a common course of instruction what are his physical, intellectual and moral states. If these are all healthy and strong we feel assured that he is prepared to begin with facility, and to pursue

with the power of unlimited progress the performance of any kind of work which the necessities and duties of life require to be done. More than this, he will bring to his work that spirit which will direct his acts to the accomplishment of the highest and best ends.

We expect that the graduate of the special school will be able to enter at once upon the practice of his chosen occupation. If the schools have made a man of him before he is permitted to restrict his activity to any special form, he will make his employment, whatever that may be, a branch of intelligence. If he enters upon practical life with no other preparation than a certain amount of technical skill; his mind will be moved by the mechanical principle of action, and he will always be in danger of sacrificing the ends of life in his exclusive and formal pursuit of the means of living.

Gladstone said, "There is great value in that kind of training in which the subjects learned have for their chief aim, not to train the hand to work in some particular art, but to operate on the mind itself, and by making it flexible, manifold and strong, to endue it with a general aptitude for the duties and exigencies of life." Mr. Huxley declares that the education which precedes that of the workshop should be entirely devoted to strengthening the body, the elevation of the moral faculties and the cultivation of the intelligence, and especially to imbuing the mind with a broad and clear view of the laws of that natural world, with the components of which the handicraftsman will have to deal. And the earlier the period of life at which he has to enter into actual practice of his craft the more important is it that he should devote the precious hours of preliminary education to things of the mind which have no direct and immediate bearing on his branch of industry, though they lie at the foundation of all realities.

What, then, are the forms of mental activity which develop that sort of mental power best adapted to perfect the individual, and prepare him to take up the work of practical life as a free citizen?

The mind naturally exerts its power first in observing, and by this form of activity gains a knowledge of material things through the senses. Some of these things are organized objects, others are unorganized, but all of them have either

parts or qualities that may be considered apart from one another by a mental operation called analysis. It does not appear to be an accident that the young learner is surrounded by objects that are constantly inviting his attention and that present to him the right occasions for the natural activity of his mind. Directed by a knowledge of the constitution of the human mind, the teacher of the young begins his work by presenting the phenomena of the external world for the mental exercise and for the elementary knowledge which they occasion.

In this way the powers of observation may be thoroughly trained and a solid foundation established for scientific knowledge; two most important steps towards perfecting the mind and acquiring knowledge, eminently useful, and quite necessary in the practical affairs of life.

At this point the method of observing becomes important. If analysis is rightly employed, the learner may be led to obtain a knowledge of things, of their elements and their relations, through his own investigations.

By practice in using his analytic powers he will acquire, with his knowledge, facility in analyzing — a fundamental acquisition.

If things are observed by the right method the mind will find occasions for acquiring that control over the organs of the body which constitutes skill, in the highest and best sense of that term, for it will be the product of intelligence rather than of simple mechanical imitation.

The study of things in the various forms under which they present themselves should be accompanied from the first with the use and study of language — language considered both as a system of signs of ideas and as a faculty of the mind, whose office it is to associate ideas with their proper signs. It is on account of the nature of language, as a mental faculty and a means of expression, that it becomes a most important subject of study in the disciplinary schools. As a faculty, its activity is a condition for the activity of the representative and reflective powers. As a means of expression, it is the foundation of all social life.

A study of language leads the learner directly to the thoughts expressed by it. A knowledge of the thoughts reveals the nature of the mind that produced them, so that a rational study

of language is a study of man, which has been wisely declared to be the great study of mankind.

The study of language in its philosophical relations to the mind is liable to be neglected, in the schools, for the mere forms of speech, and is likely to be still more neglected in the new zeal that has lately been developed for material products.

Observation by the analytic process fills the mind with particular knowledge and occasions a consciousness of things of the mind. The pupil is thus prepared with the materials and the power for forming and comprehending general truth. This is a preparation for scientific study of which very little is now done in the public schools, as such study is impossible to a mind that has no well-arranged elementary knowledge.

Upon the power of generalizing particular truths, and of analyzing general propositions for the individual truths found in them, or of reasoning, depends the ability to form rules of future conduct in any of the relations of life.

The intellect of the child is perfected by adding to its original state facility in observing and analyzing for perceptions of things — external and internal; in reproducing and combining past mental states for preserving the knowledge that has been gained, and in generalizing and reasoning for a consciousness of what is universally true.

If this is well done the pupil will be trained to think. His emotional nature will find occasions for exercise in the presence of the qualities and characteristics of material things and of things of the mind.

The relations of his will to the mental states that can be brought under its control may be established: First, through the influence of the emotions; second, through the exertion of the inherent power of self-control found in the will itself.

The principles that guide in the selection and arrangement of a common-school course of studies and exercises adapted to the cultivation of general intelligence and a preparation of the individual to take his place in life, will be found, if at all, in a knowledge of the nature and destiny of the mind. Such knowledge plainly indicates that every child, if possible, should be put to those exercises which will train him to think, feel and choose, and with all the energy and wisdom of which he is capable.

The topics of study should relate to things of nature and of the mind, and especially to human relations and to the obligations arising from them.

The method of teaching and study employed should bring the mind of the learner in contact with the objects of his thoughts.

His mind should be trained to use the senses and organs of the body as a means of collecting and expressing ideas. This training has an educational value, while that produced by mere mechanical imitation has little or none. A wonderful exhibition has just been made to the country of what the feeble-minded may be trained to do in the way of mechanical imitation. It proved that mere mechanical dexterity holds no necessary relation to general intelligence, as the dexterity may exist where the intelligence is wanting. It has nothing in it of the power to form ideas and to associate them with speech. It has nothing of the kindergarten spirit, for that ever aims to preserve a philosophical relation between ideas formed by the natural activity of the young mind and the various forms of expression suggested by the ideas themselves. It has nothing of the human element in it, which turns attention away from material things to man as an end in himself, or as associated with others in the various relations of social life.

We may fairly expect of the public schools that they will put those committed to them for discipline in the way of taking an intelligent care of their bodies, of becoming familiar with the true method of thinking of material and mental things, of acquiring that self-control which is the foundation of facility in all forms of activity, of mastering the forms and literature of the language used by means of which mental operations are carried on and all social relations are established, and, lastly, of becoming imbued with that spirit which leads the individual to place a higher estimate on moral excellence and a good conscience than on material wealth or political office or the applause of men.

THE OBJECTIVE ELEMENT IN TEACHING.

A course of studies presents a collection and arrangement of topics to be used as the occasions of knowledge and mental training. These two ends of study are accomplished only

when the topics are presented to the learner by the right method. As method is an all-important element in teaching and study, it should be the subject of careful attention by those who have charge of the schools.

The acquisition of knowledge implies the existence of a knowing mind, and of something to be known.

The mind is the cause of its own states. It can form ideas, but not until proper occasions for them have been presented. These occasions must hold objective relations to the mind.

The proof of this is found in the experience of every mind that attempts to form ideas.

The occasions may be material things or mental states, but both alike must become objects to the mind before ideas of them can be produced. After the ideas have been once formed, they may be associated with their proper signs, and reproduced by the use of language.

When we consider the relations that our intellectual states bear to one another we shall find that, as our thoughts are acts of comparison of ideas simple or complex, and our knowledge a consciousness of the agreement or disagreement of ideas and thoughts, neither our thoughts nor our knowledge can exist beyond our ideas. This truth shows the necessity of introducing the objective element into all forms of teaching that has the acquisition of knowledge as its end.

If we turn our attention now from knowledge to mental development, — the supreme end which teaching should endeavor to accomplish, — we shall learn that, as the objective method provides for the systematic and independent exercise of all the faculties upon appropriate objects, in this, it provides for their natural development. For the same laws of the mind, that must be observed in teaching for knowledge, are to be observed also in teaching for the improvement of the powers by whose activity knowledge is produced.

Method must not be confounded with manner of teaching. This will be avoided by bearing in mind that the one is founded on principles, the other arises from the individuality of the teacher. A clear distinction must also be made between knowledge and information, and between that cultivation of the faculties which trains them on the one hand to receive effects, and on the other to produce them. If these things are

observed, no confusion will arise concerning the legitimate use of books and lectures and illustrative apparatus in teaching.

The conditions of knowledge and mental development are fixed, and it is necessary for the teacher to understand them and to have his method of teaching conform to their requirements.

MORAL INSTRUCTION.

As the young pass on to mature life, they seem to be moved in the successive periods of their progress by different principles of action.

At first their choices are largely controlled by a desire for an immediate good. This they are inclined to choose without regard to a greater remote good or to the good of others.

Later on experience, good examples and right instruction may correct their early judgments, by proving to them that some of their pleasures have cost too much, while self-denial and even painful effort have been steadily working out for them the greater good. Influenced by such experience, they naturally correct their judgments and their conduct, and choose that which is for their good on the whole.

Finally, when the young are able to think of causes and the relation causes hold to their products, they will naturally become impressed with a consciousness of the existence of a personal being who governs the affairs of men, and whose will is the true source of all rules of moral conduct.

As this will is expressed in the constitution of man himself as well as by direct revelation, it may be known, and the knowledge occasion a feeling of obligation to obey its requirements.

In this way the mind is made conscious of a sense of duty, the highest principle of moral action.

In training the moral nature of the young, attention must be directed to the principles of action that control their conduct. If the desire for an immediate good, or the aversion that is implied in it is the prevailing motive, rules of conduct should be made by those in authority, and enforced if necessary by an appeal to hopes and fears. The object of these hopes and fears may be simply the approval or disapproval of those having

authority to govern. If this is true, material rewards and physical punishments are unnecessary.

The relations of the parent to his child, or of the teacher to his pupil may be such as to secure conformity to rules without any exhibition of governing power.

It is generally true, however, that the young must sometime experience the effects of rewards and punishments before the motives found in hopes and fears can be established. After this takes place a form of government can be introduced which may be felt though it is not seen.

When the selfish principle of action is modified in its influence by the introduction of the higher principle, self-love, then the young may be required to practice self-control. The teacher may now be relieved from that constant supervision before exercised, and, by appealing to the reason, may lead his pupils to choose that which appears to be for their good on the whole.

The use of the principle, self-love, enables the teacher to control the conduct of those under his care indirectly by teaching them to think before they act, and to act in harmony with their judgments of what is best. At this period of the child's progress his attention should be directed to the moral quality of his acts, that he may feel the obligation resting upon him to improve his time, to observe the natural rights of his fellow-pupils in all his relations with them, to be civil and agreeable in his manners, and to be loyal to the school by rendering a voluntary obedience to all its rules and regulations.

A consciousness of the results of good conduct will have a direct tendency to impress upon the mind the truth that it is not only wise to choose the best ends, but that such a choice ought always to be made.

When a sense of duty becomes the prevailing motive of moral action, the moral conduct of the pupil may be safely referred to his own care and direction. He may still need to be trained to a right use of his reason in discovering the truth, and to a habit of always inquiring for the moral quality of his acts.

It should not be forgotten by those who are called to direct the moral education of the young that simple repression by an external force does not necessarily produce reformation, nor

create a spirit which impels one to a constant and earnest effort to reform. Indeed, moral development is impossible unless the mind is moved by a love of virtue, and a regard for the obligation which an honest conscience imposes.

There can be no successful training of the moral nature of the young without adapting the means employed to the principles of action by which their minds are moved.

While the selfish principle is the governing one, moral conduct must be associated with an experience of its immediate consequences.

If there is an actual and immediate experience of pleasure, in connection with right acts, and of pain in connection with wrong acts, the natural desire for good and aversion for evil will control the mind in its estimation of the acts themselves. It is important to impress upon the minds of the young the idea of certainty in regard to the consequences of their moral acts.

If the rules of conduct are simple and just, the rewards and penalties appropriate and sure, then the government will be respected and obeyed.

Under such a government the mind will naturally have its attention constantly directed to an inquiry for the greatest good. As a result, it will become conscious of taking the first steps in the act of self-control. An intelligent self love will impel the mind to the practice of every virtue, though the virtue may not be of the most exalted kind. The principle as a foundation for moral conduct is defective,—as, first, no one is wise enough to determine what course of conduct will in all cases produce the greatest good, and, second, it is wholly selfish in its character.

These considerations suggest the necessity of introducing as early as possible the use of a principle that directs attention to the right and wrong of moral acts, and to the obligations resting upon free moral agents to perform these acts without any controlling reference to personal consequences.

The government of the school should be framed and executed with reference to the highest good of the pupil. If this is done and understood there will naturally spring up in his mind a feeling of obligation to yield a loyal obedience to school rules and regulations.

All school exercises should be directed with reference to the cultivation of the power of self activity. This may be done, in so far as learning and development are concerned, by bringing the objects of knowledge into the presence of the learner's mind and requiring him to make *them*, instead of the explanations of the teacher, the occasions of his study. If he is trained to observe, to reason, and to give expression to his knowledge, it may be expected that, with his acquired power, he will also have the inclination to discover and communicate the truth.

As truth needs but to be known to be preferred, by every rational mind, to that which is false, the method of teaching and study adapted to develop the power of finding the truth will naturally contribute to the cultivation of good morals.

As morals relate to man rather than to things, those topics of study which turn attention to human nature, furnish the most direct occasions for moral training.

No very positive moral results have ever been produced by teaching unless it has been directed by a knowledge of the principles of human action.

This knowledge suggests the necessity of the presence before the school of a teacher who is a living example of good morals, and worthy to be imitated. He must never violate the truth, either in his speech or in his conduct. The young must be made to conform to some simple rules of conduct, enforced if necessary by rewards and punishments.

This form of government may be employed while the will is moved largely by motives found in a desire to enjoy a present good or to be free from a present evil. After experience has proved that an immediate good is not always the greatest nor the best, and that the value of the present is due to its relations to the future, right conduct may be secured through an intelligent self-love. During the period when a desire for the greatest good is the prevailing motive in the minds of the young, they should be trained to think before acting, and to regulate their conduct in accordance with their deliberate judgments.

Their love of truth must be strengthened by a trial of its value. Good methods of study will cultivate the power of finding the truth, and experience will cultivate a love of it. Finally when scientific study has strengthened the reflective power, and the mind becomes aware that the affairs of men and of the

world are controlled by a personal being who is the author of all good, then the young may be expected to be ever mindful of their obligations to do whatever a sense of duty determines ought to be done. If the moral training given in the public schools shall produce such results, the life of the Commonwealth will be preserved.

JOHN W. DICKINSON.

FINANCIAL STATEMENT.

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION.

Dr.

APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS.

Cr.

1887.	1887.	1887.	Appropriation, chapter 6, Acts of 1887, Deficiency,	\$65,975 00 280 72
Bridgewater Normal School:				
Salary of principal,	\$2,800 00			
Salaries of assistants,	10,920 00			
Janitor service,	413 85			
Watchmen,	521 50			
Repairs,	253 61			
School of Observation,	401 00			
Printing,	97 50			
Fuel,	405 00			
Advertising,	100 20			
Apparatus and chemicals,	87 34	\$16,000 00		
Framingham Normal School:				
Salary of principal,	\$2,600 00			
Salaries of assistants,	7,638 58			
Janitor service,	840 00			
Repairs,	529 43			
Rent of Haven House,	35 00			
Advertising,	93 00			
Fuel,	450 32			
Printing,	43 00	12,229 33		
Salem Normal School:				
Salary of principal,	\$3,000 00			
Salaries of assistants,	9,282 50			
Janitor,	400 00			
Repairs,	431 12			
Advertising,	59 46			
Chemicals,	182 57			
Gas,	20 40			
Fuel,	572 22			
Water,	49 50	13,997 77		

Westfield Normal School:				
Salary of principal,	.	\$2,800 00		
Salaries of assistants,	.	7,267 50		
Janitor,	.	490 27		
Watchmen,	.	427 36		
Repairs,	.	242 62		
Stationery,	.	162 28		
Books,	.	26 88		
Gas,	.	40 89		
Fuel,	.	643 56		
Printing,	.	72 00		
Advertising,	.	23 00		
Water,	.	20 00		
Apparatus,	.	33 24		
			12,249 60	
Worcester Normal School:				
Salary of principal,	.	\$2,800 00		
Salaries of assistants,	.	6,699 68		
Janitor,	.	600 00		
Repairs,	.	552 42		
Fuel,	.	475 49		
Stationery,	.	201 32		
Apparatus,	.	57 95		
Telephone,	.	37 75		
Ice,	.	39 13		
Printing,	.	281 15		
Water,	.	10 13		
Advertising,	.	24 00		
			11,779 02	
				\$66,255 72

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

APPROPRIATION FOR NORMAL ART SCHOOL.					Cr.
Dr.	1887.		1887.	Appropriated by chap. 6, Acts of 1887,	\$16,000 00
	Salary of principal,	\$2,600 00			
	Salaries of assistants,	8,950 03			
	Janitor,	600 00			
	Gas,	63 52			
	Fuel,	1,036 08			
	Water,	29 40			
	Advertising,	156 37			
	Rent of Deacon estate,	937 77			
	Printing,	222 00			
	Repairs,	30 30			
			\$14,625 47		
			1,374 53		
Dec. 31.	Balance unexpended, . . . . .	.			\$16,000 00
Dr.	APPROPRIATION FOR AID TO NORMAL PUPILS.				Cr.
1887.		1887.	Appropriated by chap. 6, Acts of 1887,	\$4,000 00	
	Amount paid:				
	Bridgewater school,	\$751 25			
	Framingham school,	234 38			
	Salem school,	437 50			
	Westfield school,	281 25			
	Worcester school,	265 62			
			\$2,000 00		
			2,000 00		
Dec. 31.	Balance unexpended, . . . . .	.		\$4,000 00	

Dr.	APPROPRIATION FOR AGENTS OF THE BOARD.			Cr.
	1887.	1887.	Appropriated by chap. 6, Acts of 1887,	
	George A. Walton, salary, .	\$2,500 00		\$9,390 00
	George A. Walton, expenses,	446 65		
	John T. Prince, salary, .	2,499 96		
	John T. Prince, expenses, .	393 26		
	E. A. Hubbard, salary, .	833 33		
	E. A. Hubbard, expenses, .	104 68		
	George H. Martin, salary, .	291 66		
	George H. Martin, expenses,	33 24		
	A. W. Edson, salary, .	208 33		
	A. W. Edson, expenses, .	36 82		
	Henry F. Bailey, salary, .	540 00		
	Henry F. Bailey, expenses, .	161 47		
			\$8,049 40	
			1,340 60	
			\$9,390 00	\$9,390 00
Dec. 31.	Balance unexpended, . .	.		

Dr.	APPROPRIATION FOR TEACHERS' INSTITUTES.			Cr.
	1887.	1887.	Appropriated by chap. 6, Acts of 1887,	
	Paid for instructors and ex- penses of institutes at Becket, Ipswich, Ayer and Athol, .	\$586 33		\$2,000 00
Dec. 31,	Balance unexpended, . .	1,413 67		\$2,000 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONCLUDED.

Dr.	APPROPRIATION FOR INCIDENTAL EXPENSES OF THE BOARD.				Cr.
	1887.				
School registers and printing,	\$462 70			Appropriated by chap. 6, Acts of 1887,	\$1,200 00
Stationery and postage,	296 27				
Messenger and expressage,	307 66				
Preparation of statistics,	125 00				
Telegrams,	8 34				
31, Balance unexpended, . . . . .	.	\$1,199 97			
		03			
		\$1,200 00			\$1,200 00

Dr.	APPROPRIATION FOR TRAVELLING EXPENSES OF MEMBERS OF THE BOARD.				Cr.
	1887.				
Jan. 29, Paid H. E. Scudder,	\$6 10			Appropriated by chap. 6, Acts of 1887,	\$400 00
May 21, " Abby W. May,	29 81				
Dec. 23, " M. B. Whitney,	105 13				
23, " A. A. Miner,	10 90				
28, " E. B. Stoddard,	47 50				
30, " A. P. Stone,	90 97				
31, Balance unexpended, . . . . .	.	\$290 41			
		109 59			
		\$400 00			\$400 00

C. B. TILLINGHAST, *Treasurer.*

INCOME MASSACHUSETTS SCHOOL FUND, 1888.

Cash on hand, January 1, 1887,	\$68,625 33	
Income for 1887,	135,583 45	
Premium on bonds sold,	6,657 40	
	<hr/>	\$210,866 18
Paid cities and towns in 1887,	\$67,508 59	
Paid educational expenses, 1887,	66,825 73	
Williamstown coupons (unpaid),	1,932 00	
Accrued interest on bonds,	549 57	
Premium and interest on bonds transferred,	7,461 96	
	<hr/>	144,277 85
Cash on hand, December 31, 1887,	\$66,588 33	
From which there is to be paid to cities and towns in 1888,	66,588 33	
	<hr/>	
The Massachusetts school fund amounted, Jan. 1, 1887, to	\$2,715,944 00	
Amount of fund, December 31, 1887,	2,709,286 60	

APPENDIXES.

A.

REPORT OF GEORGE A. WALTON,
AGENT OF THE BOARD.

SCHOOL GRADING AND PROMOTIONS.

REPORT.

To the Board of Education :

For the purpose of inspection and examination, I made, during the year now closing, visits to 382 public schools in thirty-two towns, mostly rural. A majority of these are in Berkshire, Hampden, Hampshire and Worcester counties. As usual, meetings of teachers, committees and people were held in connection with these visits. Other towns were visited during the year for special services relating to school affairs. Without exception, every facility was given me freely to examine the schools, and my suggestions regarding them received respectful consideration. These particular schools have not come under my observation before for eight or ten years. In some towns, and especially in some schools, improvement is apparent in the means of teaching and in the methods. But in the schools as a whole progress is slow, and this must continue so long as they are kept by untrained and itinerant teachers, and superintended by committees who hold an office with little honor or emolument, and subject, no matter what the fitness of the incumbent, to constant rotation.

In addition to the visits above reported, I attended, as heretofore, the teachers' institutes, and several meetings, town, county and State, of teachers' and superintendents' associations. The month of January was spent in the office of the Secretary, upon work connected with the publication of the annual report.

SPECIAL AND PRIVATE SCHOOLS.

I made two visits to the school for feeble-minded children, and spent several days in examining two large private schools in the city of Boston. This work was assigned to me under a special order from the Board, directing one of the agents to visit the private schools of Boston and make report

thereon within a specified time. Previous engagements and limited time prevented any fuller inspection of this class of schools. I have pleasure to report that the two which I did visit, the Chauncy Hall School and the Berkeley, are in a flourishing condition. They both have pupils of the two sexes. The courses of study are essentially the same, except that the former has a Kindergarten department, which the latter has not. Above this, both take their pupils through the several grades of elementary and high-school instruction, giving a thorough fit for business, for college and for technical schools.

The Chauncy Hall School has an attendance of one hundred and eighty boys, forty-two girls, with a corps of seven male and eighteen female teachers. The Berkeley School has an attendance of ninety-four boys, twenty-three girls, with a corps of four male and nine female teachers. From the record books, to which I had free access, I computed the average attendance, based upon the enrolment, and found it to be in each school above ninety-eight per cent. Coming, as the pupils do, from various parts of the city and vicinity, this is a remarkable result, reflecting credit alike upon the discipline of the schools and the intelligence of their patrons.

Though my efforts to gain admission to the parochial schools for the purpose of an official inspection were not successful, I am happy to say my application was courteously received by the several pastors in charge, and I was cordially invited to visit the schools as a private citizen.

SCHOOL ORGANIZATION.

My attention has been directed, in some special instances, to the classification and grading of the schools. These topics will therefore receive a brief treatment in this report.

Grading.—School grading consists in placing together pupils who are of about the same proficiency, age and mental capacity. The classification and grading of the elementary schools is a recent invention. Former school systems were based mainly upon the teaching force employed. One person, usually a master, gathered children of all ages and of various attainments, and conducted them, one at a time, through their studies. Later systems brought together larger numbers to be

trained by monitors under one general supervisor. The instruction under these systems was not, till a recent period, and then only for special exercises, directed to class training. The individual system still exists in many of our primary schools, where, one after another, the children are brought to the teacher's knee to repeat the letters of the alphabet, or review their slowly accumulating vocabulary of words. It virtually exists in classes of higher institutions up to the college,—little success being achieved in interesting others of the class beside the one student who, for the moment, is on the stand. This system was adequate when the work of the school consisted in studying lessons till they were committed to memory, and in memoriter recitations of what had been thus studied.

The present system contemplates the school and the class as a collection of persons pursuing instruction together. The ends of the pursuit are knowledge and increase of mental power; the means, self-activity on appropriate objects of thought.

Teaching is for the purpose of presenting to the class the occasion for their having the right activity and for acquiring the proper kind and amount of knowledge.

The education of the child is a progressive work. What he can acquire at some future time must be based upon what he knows or is learning to-day; what is possible for him to learn to-day, depends upon what he has previously learned. Not only is there dependence in regard to the knowledge to be acquired, but also in the mental processes. There is an orderly development of the powers of the mind: it must gain a knowledge of sensible objects, perceive their properties and parts, before the memory and imagination can be exercised; and the ability to use these powers is a necessary condition for the activity of the powers of reflection.

This progressive element in education necessitates a course of studies, which is an arrangement of the branches of learning according to their order of dependence and having reference to the orderly development of the human faculties. It is the basis for classification of schools into primary, intermediate, grammar and high; it is the basis for the several classes forming each of these grades of schools; and, finally, it

is the basis for all the pupil's instruction, whether he be trained in a class or alone. Schools classified upon this basis are called graded schools.

Purpose of Grading.—The object of grading the schools is to start together children who are to acquire the most elementary knowledge, who are learning to use the instruments of study and to practise the “mechanical virtues,” and by gradations to advance them to a stage where, having learned a good method, they shall have the power of independent thinking and of self-direction. The advantages of grading are too obvious to require argument. The underlying principle is to make the means employed for the education of the child the most productive possible with the greatest economy of force applied. Suppose a teacher is paid two dollars for five hours' work, if he gives a single pupil a half hour's time the cost for that pupil is twenty cents; if he can instruct twenty pupils instead of one the cost for each is but one cent. Or, looked at in another way, if he has a school of thirty, and instructs each pupil individually, he can give each but ten minutes of his time per day; whereas, if he can instruct the thirty in classes of fifteen each, he can give two and a half hours per day to each member of the class.

The greater part of the early school life of the child is occupied in gaining a knowledge of facts and in acquiring facility in expressing this knowledge in speaking, reading, writing, drawing, singing, and in numerous exercises requiring repetition and drill. In work of this kind a large number of pupils can be instructed by a single teacher as well as could one or two. But above this economic value is the exhilaration which arises from association in class and companionship in study. Nor will this come from belonging to the same school simply; it can come only from having common efforts and aims, from achieving like success and experiencing like defeats. In the words of another:—

“Classification serves as a healthful stimulus, cheering such as are suffering from isolation in its various forms, strengthening and refining the social faculties, developing a friendly spirit of co-operation and arousing and quickening the listless and lethargic. It encourages true emulation,—the ambition to do what our leaders do, and to do it as well. Emulation, though easily transformed into the anti-social feelings, rivalry,

envy and hatred, is an educational instrument far too powerful and beneficial to be dispensed with." *

Practically, where there is unity of interest under proper authority, the ratio of mischievous and troublesome pupils to the whole number diminishes as the school increases. There is an element in the force which animates large numbers brought together for a common purpose, that leads them instinctively to conform to rules of good conduct. The military direction, "If any one touches you, give way," is as rational as it is necessary. Again, a class of considerable size always has leaders who are recognized by their classmates, and who become to them objects of emulation.

It is necessary to success in every business and mechanical pursuit, that there be division and subdivision. Sometimes this extends to minute details. Before our table knife was ready for use the blade was drawn under the trip-hammer from bar steel, the bolster, shaft and blade were formed to proper shape; the blade was hardened, tempered, ground, finished, polished and stamped or etched; the handle was sawed out, bored, and after receiving the blade, filed into proper form, and polished. Then followed the final finish, cleaning, inspection, packing, invoicing, and forwarding to storehouse or market. And for each particular part, training, and for some, skill and peculiar fitness, were required. The grading of the schools is in accordance with the methods of business pursuits; it divides the work of instruction and selects teachers with training and skill and special fitness for each particular part.

If children can be brought together in larger numbers, fewer schoolhouses need be built and maintained; better houses can be afforded; they can be more amply supplied with the means for teaching,—apparatus and books of reference; higher wages can be paid to teachers, those better qualified can be employed; school terms can be lengthened; the supervision of the schools can be made more effective; the courses of studies can be extended; the time and regularity of attendance will be increased, the school spirit improved and a general advance be made along the whole educational line. The schools can be made both more economical and more complete.

* H. S. Jones' Report on City School Systems. Nat. Council of Ed., 1886.

Small Ungraded Schools.—One of the instances referred to in the first paragraph under School Organization was a case upon which I was called to make a report. It was of a district whose schoolhouse, by vote of the town, had been removed from a village near the boundary to a location near the centre of the territory comprising the district. The parties living in the village from which the house was removed asked permission to send their children to another school about equally distant from the new location of their former school. They urged, as one reason for their desire, the greater benefit their children would derive from being in a larger school. Objection was made by the school committee that the transfer would reduce one school to ten or twelve pupils, and swell the other to thirty, and that thereby both schools would be seriously impaired.

My own opinion was, that a school of thirty or thirty-five pupils, even if it did not admit of close grading, the number of classes being the same, would do more work and better, other things being equal, than a school of a less number. It is necessary to have a school of thirty or more pupils in order to form classes large enough to excite any great enthusiasm. And I think an ungraded school of sixteen or twenty pupils is not likely to be much better for this purpose than one of ten or twelve. Neither is sufficiently large to secure to the classes the social and intellectual benefits of class association. The request of the parties in this case could have been granted, so far as concerned the schools, without loss to either school, and with absolute gain to the larger. Since giving this opinion it has been confirmed by the unanimous opinion of a large number of teachers and superintendents, and by several committees who have had experience with this kind of school. There can be no doubt that, as a general rule, ungraded schools containing thirty or forty pupils are superior to those containing a less number than twenty.

In the town of Chester, I rode, by estimate of the committee who accompanied me, a distance of over forty miles, to reach six schools, having an aggregate enrolment of sixty pupils. In three of the towns visited in the month of May were nine schools, the largest of which enrolled but eight pupils, the whole but fifty-three, an average of five and eight-ninths pupils to a school. For the maintenance of some of these

schools there is no good reason. And there are in nearly every town visited some schools which ought at once to be abandoned, the few children being provided for elsewhere. The large number of such schools in the sparsely populated portions of the State show how strong are local attachments, and how tenaciously we cling to these signs of a former prosperity, appropriating our hard-earned money with a courage worthy of a better cause, and sacrificing our children, with a blind superstition, to maintain institutions that have long outlived their usefulness. All intelligent observation and experience show that it is unwise to maintain small schools wherever it is possible to avoid it.

Teachers. — The schools we are considering have children of great disparity in age and attainments, necessitating a wide range of studies and numerous classes; they are for this reason called mixed or ungraded. Large numbers of these have teachers unskilled in their work. Of 228 schools visited since September, most are quite mixed, many having three or four classes in each of as many branches; some are almost literally ungraded, frequently having classes (?) of but one or two pupils, and four or five times as many recitations per day as there are pupils in the school. Including the teachers in the well-graded schools in the above number of teachers, I found but twenty-six who had received any Normal School training, and a smaller number still who were Normal graduates; ninety-five were new to the schools they were teaching, and many were entirely new to the business.

I am not able to report any material change for the better, from year to year, in this class of schools. Now and then one becomes extinct. The greater part will remain, and, unless some more efficient means is provided for their improvement, it will be a marvel if they do not go from bad to worse.

Graded Schools. — If we turn now to the schools in populous towns and cities, where all the pupils under one teacher are of the same or nearly the same grade, we shall find that the dangers to which this class of schools is exposed are in administration.

Classification. — The purpose of school organization is to give better instruction to the individual. The needs of each child must be kept constantly in mind; the advantages of class

association are of the greatest importance, but classification is not an end in itself, no more is the saving of time or of money. No classification can be justified which hinders the progress of the individual; which does not, indeed, aid that of every child.

The larger the school, all other things being equal, the more exact is it possible to have the classification. This may, on the one hand, be so close that only those who are able to keep exact step can move on; in which case the class will be made too small for economy or for proper stimulation, and may become so formal that no spontaneous activity will be engendered. On the other hand, such large numbers may be put in charge of a single teacher that even class instruction will be difficult, and individual instruction quite impossible.

The latter evil I have recently found in three village primary schools. These had, severally, under a single teacher, seventy-four, seventy-five and seventy-five pupils, and in the previous term the last had an enrolment of 110 pupils. Nor were these closely graded schools, — each covered four years of the school course. Here the teaching force should have been doubled.

Looseness of Grading. — For one reason or another, in many schools, the grading is not availed of, even where it might be; instance the above cases, where, if the law requiring an assistant for a school of fifty or more had been complied with, the grading could have been nearly perfect.

Close grading implies thorough teaching and intelligent supervision. In most of the schools recently visited, including both the ungraded and the graded, the average child reading in a fourth reader cannot read well in a second. Nor can the majority of the pupils who have completed their arithmetic solve problems involving the simplest applications of fractions and compound numbers, and but a small minority who are studying grammar have been able to supply the proper verb in the sentence, *One of my arms — lame*. This want of thoroughness of preparation upon lower-grade work, leaves the upper grades so cumbered that they can but poorly accomplish their own work.

To further illustrate : Being called to advise with the committee of a populous town concerning a re-organization of their schools, I took along the results of the tests applied about three years previous in the schools of that town. Comparing these results with those obtained in another town not more favorably situated for careful grading, it was clear that many children six years in school in the former town, had not done two fair years' work. On looking over the names of these pupils, the committee were surprised to find that not one of them had yet entered upon ninth-year work, nor would be prepared to do so till another year, although three years and four months had already elapsed. Here there was a whole class of pupils that had taken six years to do two years' work, and were in a fair way to take four or five years to do the next three years' work. That is, if they entered school at five years of age, at fifteen or sixteen their school age would be about ten !

By a liberal estimate, not one-half of the work properly assigned to the first half of the elementary course of studies, is done in that half. For pupils who complete the full course some amends may be made by the greater skill and over-work of the higher-grade teachers. But what of the pupils who are unfortunately not privileged to reach these higher grades ? And what of the teachers, who, having fitted themselves for a particular grade of work, at length awake to find their nightmare struggle a reality and the grading only a dream, as in many so-called graded schools it really is ?

The following is another of the instances referred to in the first paragraph under this general subject, and will serve as an illustration of loose grading : —

A majority of the school committee of a town asked the opinion of the Secretary of the Board upon their action in establishing and maintaining a separate school for forty pupils in a village where there were already several village schools. The occasion of desiring this opinion was the action of a meeting of citizens, asking to have the school discontinued and the children distributed among the other schools of the village.

It was represented by those opposed to the maintenance of the school that, while the number of children was decreasing, the school expenses were increasing ; that there were more seatings in other school buildings than enough to accommodate

all the children gathered in the new school; that the children could be distributed among the other schools without giving over fifty pupils apiece to the several teachers; that Boston gave even larger numbers to hers.

In this town within a few years an effort had been made to carefully grade the schools. Tolerably close grading was warranted by the extent and compactness of the population. A detailed course of studies had been adopted, which formed the basis of promotions from grade to grade. The room occupied by the new school was already furnished. Exclusive of this school, there were four schools of different grades in four different buildings. This school formed a distinct grade of forty pupils, which was about the average number to a teacher in the other graded schools of the town.

There seemed to be two or three serious objections to placing the children of this school in either of the other schools, or in distributing them among these. The recitation rooms connected with two of the schools were too small to accommodate the classes with the increased numbers. Inexperienced teachers occupied these rooms as assistants. The objection of greatest weight was that the pupils were not fitted to enter the grades of the other schools, two or three of which already had two or more grades. In this instance the opponents of the committee's action seemed to overlook the classification necessary in the administration of a large school, and did not consider the difference in fitness of teachers for their work. They appear to have counted the cost of an additional teacher, to have taken Boston as an example with her fifty-six seats to a room, and felt themselves aggrieved with the committee's action. Now Boston furnishes an example of ample school accommodations, of adequate school supervision, of almost perfect grading, of well-trained and experienced and amply paid teachers, in many of which respects this town is in marked contrast. Yet Boston, even with all these favoring conditions, is not an example worthy to be followed in respect to the number of pupils to a teacher. Classes with the best possible grading should not much exceed forty pupils. After visiting all of the group of schools in the district under consideration, conferring with the teachers and citizens, and learning the views of the several members of the committee, taking into account all the circum-

stances, the over-work and annoyance of the teachers from defective classification, the inevitable loss to the children from insufficient accommodations, the want of proper relations to the school work, and consequent imperfect instruction, I had no hesitation in advising the continuance of the school.

The principle to observe in the classification of elementary schools is to assign to one teacher a single grade of pupils, which is susceptible of being worked in two classes of nearly equal numbers, these being small enough to secure individual work and perfect attention, and not too small to secure the discipline which is exerted by considerable numbers engaged in a common pursuit.

Promotions.—It will be apparent, from what has been said, that the terms ungraded and graded but imperfectly designate the kinds of schools, in reference to their classification. There are but few schools that admit of perfect grading, fewer that admit of none at all, and between the extremes are various degrees. In some essential respects both kinds correspond with each other; their routine and aims are alike, their methods the same. All require some well-conceived plan for advancing their pupils from class to class and from grade to grade.

Promotions need to be guarded against too great rigidity by over-nice exactions, and against too much laxity by promoting pupils poorly fitted for advanced work. In the ungraded schools, where promotions are left almost entirely to teachers, the latter evil is well-nigh universal. This and loose grading hold the relation of cause and effect, if not of identity.

The complaint oftenest met is that made against too great stringency in making promotions in graded schools; this comes chiefly from the parent, and often comes too late. He sees the years slipping by, and becomes anxious to have his child, too, move on. He pronounces the graded school a slow-grinding machine, complains of over-pressure and over-crowding, of examination tests and so on. The fault may be in the child, it may be in the parent, who did not scruple, perhaps for a trifling cause, to permit his child to be absent, in his earlier years, whole days and weeks. If the class as a whole is kept back, this should be charged to the exactness insisted upon for promotion, or to something in the organization or administration of the system.

The instances cited under loose grading may all be fairly attributed to defective supervision. From the same potent cause may result the following, which occurred in a large town: After submitting some grammar-school tests to a class old enough, certainly, to take them, I was told that the field I was surveying was the seventh year of the school course, and that six years of grammar-school work still lay beyond before these pupils would enter the High School. Little grain will be sent to that mill after such winnowing!

Course of Studies.—That the grading may be kept up and the progress of the pupils be assured, there must be a well-considered course of studies, with a distinct and detailed allotment of work for each grade. A question which I have been recently called to consider is, What should be the length of time this course should occupy below the High School? The occasion for this inquiry was the attempt in a city to reduce the limit of the existing course from nine to eight years. This plan contemplated doing the preparatory work for the High School in eight years; it provided a supplementary course in book-keeping, advanced arithmetic, and a general review, for the ninth year, in the grammar school. At the end of this course the graduate was to receive the grammar-school diploma.

Several advantages were claimed for this scheme. The principal among them was that eight years was sufficient time in which to fit for the High School. The scheme proved in practice to be confusing to all the principals of the grammar schools, each of whom had a class trying to fit for the High School in eight years on requirements substantially the same as when it took nine; also, a small advanced class, including the few who, the previous year, failed to reach the High School, and who were in a most discouraged and dissatisfied state of mind. It sent to the High School some recruits who, from forcing and immaturity, were rather raw. It cut off some who, with a longer time for preparation, would have entered that institution. Most of these were not attracted by the supplementary year in the grammar school, and so quit school altogether. After a brief trial the double course was abandoned.

To learn what was the approved period of time required to prepare well for the High School, a letter was addressed by the

superintendent to a number of cities in various parts of the country. This letter was responded to by ninety-five cities. Some reported a seven years' course, one or two a ten, thirty-five an eight, and forty-five a nine. The nine years' course is nearly coincident with the cities reputed to have the best systems of schools. A nine years' course, then, seems to be favored by custom and demanded by good sense. In the returns above referred to was given the average age of pupils entering the High Schools. Under the eight years' course it was fourteen years eight months. Under the nine it was fourteen years eleven months,—a difference of only three months. And this was what might have been expected. Whether eight or nine years was given to the course, since no essential change was made in it, if it was well arranged and work under it was properly supervised, the length of time required to complete it would be about the same. Under the eight years' course fewer pupils would reach the standard for the several grades, and many would have to be demoted. Under the nine years' course the standard would be reached by a larger number, hence a greater number of promotions. Here, then, is an argument in favor of the nine years' course. It affords encouragement and healthy stimulation, while the eight years' course tends to discouragement and repression.

Class Promotions.—For the effective working of the graded system, promotions must be made by class and at stated periods of time. These will correspond, of course, with the time of completing the work assigned to the several grades. A few places have come under my observation where the grade work for the year is subdivided, and promotions are regularly provided for semi-annually; though, as a general rule, these occur but once a year.

It is not difficult to keep the major part of the class up to grade and advance them together. The means best adapted to this are good teaching, and judicious daily testing of work, usually in writing. Tests at longer intervals, also final tests after the work of the grade is completed, should be applied by the supervisor or some person other than the regular teacher. The results of all these tests should form the basis of promotion from grade to grade. In teaching, the teacher is the sympathizing friend; in testing, he best shows his friendship

by leaving the pupil entirely alone. One object of the test is to discover what the pupil knows and what he does not know. Proper testing is the pupil's privilege, the teacher's opportunity.

Individual Promotions.—In every considerable class there are stragglers. There are also those who are in the van, able and ready to move forward. The former, by watching and guiding, can usually be kept up to a fair standard; something additional can be given the latter to do. For the weak, if faithful, some consideration may need to be shown. In one city, among the rules for promotion is a provision that “Pupils who have been two years in a grade and who have been regular in their attendance and faithful in their work may, on recommendation of their teachers and the superintendent, be advanced to the next grade without having reached the required standard.” The practice followed in many places is to admit upon probation such as fall below the standard. Indeed, in some places the whole class are so admitted.

Provision is made, in the elementary schools of the city above referred to, for advancing some more proficient pupils at the end of six months, the general promotions being made annually. Here the course of studies is operated with reference to these semi-annual promotions. The entire course for a year in the two leading branches—arithmetic and language—is passed over by the whole class in the first half year, and again in the last. The principles involved are carefully taught in the first half year. Drills and reviews, with special applications, occupy the last. At the end of six months individual pupils of promise are advanced to the next higher grade. If successful here, at the end of the year they will again be promoted, in this way passing over two years' work in one. Remembering that the work of the elementary schools consists largely in reviewing and drill, it will be seen that with careful supervision this is entirely practicable.

The plan can be most successfully applied during the pupil's earlier years in school. It enables those especially who enter school late to overtake those that entered at the earliest school age. Where this has been practised, in the city of Newton, under the watchful care of Superintendent Thomas Emerson,

in 1887, out of a school population of about three thousand below the High School, three hundred and three pupils were advanced from their grade in the middle of the year. Of these, two hundred and thirty succeeded in reaching the standard for promotion from the next grade at the end of the year. Seventy-three failed, but nearly all have a fair prospect of a double promotion the next year.

Leominster, through her successful superintendent, I. Freeman Hall, has worked out a little different plan, by which the same object is attained. Here the course and grading are so arranged that pupils who are able may do the work of two successive years in one, all in the same room, and so have, instead of two, but one promotion for the two years. The pupils who are preparing for the double promotion do the first half year's work of the two successive years in the same time that the class as a whole do that of but one year; so for the last half. This plan has the advantage of subjecting the pupil to a less frequent change of teachers. Any plan which removes the objection to the graded school—that it keeps the brighter children back—is a valuable contribution to the system. If qualified and able to advance faster than his class, justice to the pupil requires that he have the opportunity.

In the returns made to inquiries concerning the length of the course of studies for elementary schools, it was found that the average age of pupils on completing the course was about the same, whether the course was planned for eight or for nine years. That result seems to have followed from natural causes. Precisely the same result follows, in the same way and in greater degree, from double promotions. Hence these would seem to be in the order of nature.

In any class system there is some danger that the class feeling will exercise too much influence over the individual. Most pupils do not accept a lower grade without an instinctive sense of degradation, or see their classmates put forward without a suspicion of a wrong done themselves. Classmates, and parents sometimes, share these feelings. The interest of the pupil is served when he is placed where he can work to the best advantage; this both he and the parent should feel. The rule for the teacher to observe is, to place each pupil where he will be most benefited, reason-

able consideration being had for the whole class or school. The teacher or supervisor will often find it difficult to form a judgment as to what is best for the pupil, but when formed he must have the courage to put it in execution.

The length of this report will prevent a consideration of some topics suggested by my visits, regarding the treatment of the two kinds of schools we have been considering. One question which has arisen is, In schools admitting of close grading, shall the class be worked all together or in sections? My answer is, In most subjects, and generally, in sections. Inattentive pupils can be better taught and stimulated in classes not too large. Better attention to study and recitation will be secured with the more frequent changes likely to ensue. The teacher's time will be more usefully employed,—if I might generalize from a few instances which gave rise to the above question. In one school, where the studying and the recitation of the whole class alternated, the teacher spent his time in telling what the pupils could have found out themselves, and in hearing imperfectly recited what the pupils would have better understood from study than from being told.

Year after year the reports of observations made in the schools have been presented to the Board, and, through them, to the Legislature. Since the number of agents has been somewhat increased, their reports are confirmatory each of the others. And yet the combined testimony to the evident needs of the schools does not move the Legislature to make those provisions without which the reform needed in a large number of the towns is impossible. The school-committee system of supervision, unaided, seems inadequate to produce needed changes in the administration of the schools. The demand for supplementary supervision must come from the people.

Much good might be accomplished by distributing more freely, in pamphlet form, the various reports published by the Board. Such distribution is restricted at present by legislative enactment. Perhaps the restriction is wise, in general; but it would seem that some special provision should be made for sending to all the people who will read them, these reports, with other tracts showing the possibilities of improvement in the schools and pointing out some of the efficient

means to this end. The effect of such provision would certainly be to awaken and keep alive a more intelligent public sentiment upon school affairs. The times demand that every practicable means shall be used to make our public schools as good as it is possible to make them.

Respectfully submitted,

GEORGE A. WALTON.

WEST NEWTON, Dec. 31, 1887.

B.

REPORT OF JOHN T. PRINCE,
AGENT OF THE BOARD.

REPORT.

To the Board of Education :-

Before referring to my work of the past year, I desire to call your attention to the practical operation of some of the laws of the State relating to education. What I shall give will be the results of my observation during the past four years, rather than conclusions based upon statistics.

Number of Schools.—As would be naturally expected, there is some difference of opinion on the part of school committees as to what constitutes a “sufficient number of schools” which are required to be kept at least six months in each year. In no town, however, have I found much hardship endured by pupils on account of an insufficient number of schools. Pupils are rarely found who live more than one and one-half miles from their school, and although there is some irregularity of attendance by reason of living at a distance from school, the number of children is small who absent themselves from school all the time on account of excessive distance.

In a few cases I have found committees using the funds which had been appropriated for school purposes for boarding pupils near the school and for carrying pupils from their homes to school,—a proceeding which was discontinued as soon as attention was called to its illegality.

If school committees err in either direction, it is likely to be on the side of providing too many schools rather than too few. It is not uncommon to find in country towns very small schools which should, in the best interests of the pupils and for the sake of economy, be united to other schools.

District System.—With the exception of one instance in Berkshire County, about which I sent you a special report in October, the *letter* of the law abolishing the district system is

obeyed faithfully in all towns which I have visited. But the spirit of the law, I regret to say, is ignored in many towns which are accustomed to choose a large school committee, corresponding in size to the number of former school districts. The duty of each member of the school committee in these towns is as nearly like that of the old prudential committee-man as the law will permit. He furnishes the wood and other supplies, sees to repairs and hires the teacher, who is sent to some one appointed by the committee to be "approved." Custom varies as to the practice of committees in electing teachers. Sometimes there is a formal election of a teacher after he has been selected by one of their number, and sometimes the power of the committee is delegated to each member, and no further action is deemed necessary. In all towns, however, where the schools are parceled out to individual members of the committee, there is no dissent generally from the selection made by any member, neither do members seem to have any responsibility for the proficiency of schools which are not called theirs.

Size of Schools.—In some cities and large towns there is seen occasionally a school of sixty or more pupils, crowded into a single room and taught by one teacher. This is clearly in violation of the law, which requires every public school with an average of fifty pupils to have an assistant teacher.

School Attendance.—I infer from answers to repeated inquiries in all quarters that the laws relating to school attendance are not properly enforced in many towns and cities of the Commonwealth. School committees and teachers occasionally refer to cases of continuous non-attendance of children from school for one cause and another, and school registers frequently disclose the fact that there are pupils who do not attend school the required number of weeks in the year.

It is doubtless true that there is some truancy even in places where the school officers are most vigilant in preventing it; while in those places where it is assumed that there is no truancy, and where few means are taken to prevent it, the evil exists, I believe, to a most alarming degree.

The class of persons to whom the law relating to attendance at school especially applies, know the age limits of the law, and in many instances seek to evade its provisions by misrepresentations of age. Misrepresentations by parents, also, in

respect to causes of absence from school, in order to shield children from the penalties of truancy, are not uncommon. There seems to be no alternative for school officers but to accept the word of parents and guardians, although by doing so they know that the law, in its spirit, is not obeyed.

It might be well to provide by law means of securing greater accuracy in respect to ages of children, and, in order better to protect their rights, to extend the age of compulsory attendance at school to fifteen years.

In the smaller towns I find that the school committee hesitate to enforce the law for fear of offending a citizen, whose only offence, in the eyes of his townspeople, is a spirit of thrift in utilizing the needed service of his child. Sometimes an habitual truant is not proceeded against on account of the expense which his retention abroad would occasion, and sometimes a complaint is not entered on the plea that the magistrate will not convict. It may be said of many towns that the truancy laws are enforced only as the parents or guardians join in a request to send their children away, and that in all towns and cities offending parties are prosecuted only when public sentiment sustains the school committee in rigidly enforcing the law. When the importance of regularity of school attendance is felt by the citizens, and when better provision is made for the care and correction of habitual truants, doubtless there will be means employed for preventing what is now a most crying evil.

So far as I have observed, the officials of "manufacturing, mechanical and mercantile establishments" very generally coöperate with the school committees in requiring certificates of attendance at school from children who apply for work. There are some complaints because of the fact that the law regulating the employment of children does not extend to all employers of child labor. Under the present law certain farmers and some others do not hesitate to employ children who would not be allowed to work in a factory or store.

Free Text-Books and Supplies.—There seems to be a faithful, and, in most places, a cheerful compliance with the law relating to free text-books and supplies. In a few towns supplies of pencils and paper are not provided for the pupils,—an omission which is doubtless due to the fact that the com-

mittees in those towns do not yet recognize the importance of much written language work.

Teachers' Certificates.—From answers to questions which I have asked in various quarters, I judge that few school committees of the State now give duplicate certificates to teachers, as required by law. The importance of a proper compliance with this law is readily seen when we consider that the rights of both teacher and pupils may at any time be questioned if no certificate of qualification is held by the teacher.

School Registers.—In not a few towns the school committee do not seem to require the registers to be faithfully kept by the teachers. In some schools the record of attendance is kept in small note-books, and frequently it has been difficult for me to ascertain the record of attendance for previous terms. In most of the registers I find omissions, of one kind and another, which must cause some inconvenience to the committee when they come to make their returns to the Secretary of the Board.

Branches of Instruction.—The law in relation to the branches to be taught in all grades of schools seems to be very generally observed. In many places more subjects are taught than are required by law. High Schools are established in towns which are not by law obliged to maintain such schools, and teachers of ungraded schools in small towns are frequently found teaching High School branches.

The two most recent additions to the list of required studies have not yet a place in all of the schools of the State. In the small towns especially, the non-compliance with the law, in respect to drawing and physiology, is most apparent. The question is frequently raised by teachers and committees as to what constitutes a proper compliance with the law in teaching physiology,—a question which is difficult to answer. Certainly the use of a text-book does not always indicate that the law is most faithfully observed. In one town, it may be, no text-book is used by the pupils, a general exercise upon the subject being given occasionally by the teacher. In another town a text-book is used by every pupil, and two or three classes recite daily. Between these extremes there is a great variety of practice. It may be said, perhaps, that a compliance with the law is determined by the amount of good which is done to pupils by

the study, and this depends more upon the character of the teaching than upon whether the pupil has a text-book or not. A proper use of the text-book by the pupil is unquestionably a help, but a substitution of it for teaching is worse than useless. To show what may be done without a text-book in the hands of the pupils, and what is done, sometimes, with a text-book, I will copy from my note-book, notes taken of two recitations in physiology : —

1. Second and Third Classes of Grammar School : Subject — The Eye. An ox's eye on a table, being examined by pupils in groups ; questions asked by teacher and answered by pupils from observation ; entire sentences written upon the black-board and in note-books, expressing the knowledge thus gained ; followed by lesson upon the use of parts and upon diseases and care of the eye ; pupils interested, and all answers thoughtful.

2. Intermediate School : Question and answer method. Recitation by turns, and answers given in words of the book. No explanations given by the teacher and no interest shown by the pupils. Method illustrated by the following : —

Teacher : “ What effect has alcohol upon albuminous substances ? ”

Pupil : “ Coag — ” (hesitates).

Teacher : “ It coagulates, doesn't it ? ”

Pupil : “ Yes'm, coaglates.”

Teacher : “ Class, is alcohol assimilated ? ”

Pupils (together) : “ No'm.”

If asked to state whether the subject of physiology is taught, and whether a text-book upon the subject is used, one teacher would say, “ A general exercise of one hour is given once a week. The pupils have no text-book upon the subject ” ; and the other would answer, “ Three classes in physiology recite daily from text-books.” Upon paper the latter teacher would seem to be the most faithful, and yet we should not hesitate, after seeing the work done, to decide which teacher most faithfully complied with the spirit of the law. Upon the whole, I am able to report that there is an earnest effort in most towns to comply with the law, and that the results, considering the difficulties in the way, are fairly satisfactory — quite as satisfactory in many towns as are the results in other branches of instruction.

SCHOOL INSPECTION DURING THE YEAR.

Besides making one and two days' visits to twenty-three towns and cities in various parts of the State, I have visited, during the past year, all, or nearly all, of the schools of thirty-four towns, holding day and evening meetings in some, and half-day meetings of teachers and committees in all.

The conditions under which the schools of these towns are maintained, differ widely. For purposes of comparison and better to show the condition and needs of the schools, I will speak of the towns which I have visited in three classes.

The first class may include the smaller towns which have most felt the exodus of population to cities and large towns. The schools are very small in these towns, and the cost of tuition for each pupil has therefore greatly increased. At the same time the burden of supporting the schools is felt to be greater than formerly, in consequence of the depreciation of property and the decrease of population. The schools are kept but six or seven months in the year, and the teachers are paid far less than most servant girls receive. Under such conditions it is not possible to get and retain trained teachers. Most generally the committees of these towns are obliged to hire teachers whose only education was obtained in schools of the same kind in which they are expected to teach. With such teachers, having schools of less than a dozen pupils, and having few means of teaching, generally only a globe and one or two dilapidated maps, it is not difficult to imagine what kind of work is done. These young teachers are, as a rule, intelligent and faithful to what they consider to be their duty, which is generally to "keep order" and to hear lessons from a book. A visitor fails to discover, in anything which the children do, any training of the powers of observation, and, with the exception of some arithmetic work, there seems to be little real thinking on the part of pupils, or any exercise calculated to encourage it.

Children of eight and ten years of age are found unable to write, and almost nothing is done in the direction of leading the pupils to write their thoughts in good English. Examinations show that the most practical work is neglected. Not unfrequently I have examined all the schools of one of these small

towns upon problems which are involved in an ordinary errand at the grocery store, and failed to receive a single correct answer. If this condition of affairs was exceptional in these towns, or if the number of towns was small of which this could be said, the situation would not be so serious. But my experience leads me to believe that the class of towns of which I have spoken comprise nearly one-fourth of the towns of the State, and that, with the exception of a few schools which have had the continuous service of good teachers, all the schools of these towns are faulty in the way and to the extent which I have indicated.

The second division of towns in my present classification includes the country towns which have been able to retain, or increase somewhat, their population and wealth, by reason of nearness to market or because of the introduction of other industries than those belonging to the farm. Here the conditions are more favorable for the maintenance of good schools than in towns of the first class. The taxes are not so burdensome; many of the schools are of good size,—large enough in places to do some grading; a High or an advanced grammar school is supported; the school year is eight or nine months in length, and the salaries offered are sufficiently high to secure a few trained and experienced teachers, and to insure some degree of permanence. While the schools of this class are manifestly superior to those of the first class, there are still grave defects in their management and in the methods of teaching employed. Only occasionally, even in these schools, do we find the objects of thought presented to the pupils systematically and persistently. In too many the pupils are put to memorizing the words only which represent the thought of some one else, and, as a consequence, when they are brought to the test of thinking for themselves, they fail.

It must not be inferred from what I have said that the quality of the schools is always determined by the size or financial ability of a town. I have in mind two or three small towns lately visited, whose schools would rate in excellence far ahead of the schools of larger towns; and there are many schools of the larger towns which are in all respects as poor as the poorest schools of the State. Generally, however, it may be said, that those towns which can afford to pay good salaries to their

teachers are more likely to have better schools than towns which pay small salaries.

I come now to speak of some of the largest towns of the State, whose wealth enables the school committees to provide means for carrying on the schools which are not provided in less favored localities. The school rooms of these towns are of good size, well lighted, and, as a rule, well provided with blackboards and other means of teaching. The teachers are employed generally by the year, and receive good salaries. As a consequence there are more trained and experienced teachers found here than in the smaller towns, and there are fewer changes in the corps of teachers from term to term. Under such circumstances, we should expect to find good work done, but the expectation is realized in only some of the schools. We cannot, of course, expect to find uniformly good schools in any place; some schools will of necessity be poorer than others; but we should not see so many mistakes and failures which we do see in towns abundantly able and willing to pay for the best service. It may be asked, What element is wanting in these towns to secure the best results, or the results which a generous outlay of money demands? I answer without hesitation, A proper kind of supervision; a supervision which will detect the faults which exist and help to remedy them, thus extending to all schools some of the good results which are now found only in a portion of them.

The external conditions under which the schools are maintained in these large towns are not unlike the conditions which exist in other large towns and cities where there is skilled supervision; and there is no question as to the efficacy of such help when the schools of various localities are placed side by side for comparison. While it can be seen plainly that the inexperienced and incompetent teachers need the guidance and direction of a person skilled in the best methods of teaching, good teachers are often equally aided by such service. The best teachers are glad to have the superintendent's support and encouragement in the use of good methods, and are helped frequently by one who is in a better position than they to see the end from the beginning, and to know what means should be used to accomplish the best results.

If the service of a superintendent of schools is valuable in

places where the circumstances are so favorable to success, how much more valuable and necessary to successful work will be that service where the schools are small and where the teachers are untrained and inexperienced. The experience of a few small towns which have combined for the purpose of employing skilled superintendents, fully justifies all that has been said in favor of better supervision in the country towns.

That these towns need, and have a right to claim, assistance from the State at large, is obvious to all who have seen, during the past few years, the exodus of their population to the large centres, and who know the difficulties under which they labor in supporting their schools.

The way in which the State should give assistance is a matter of great importance. It may not be wise to add greatly to the present school-fund without conditions. The danger of such direct assistance may be illustrated by the action of a town in the western part of the State at the time of the redistribution of the school-fund two or three years ago. In view of the fact that this town was to receive one hundred dollars more from the State than they had received before, the citizens, in town meeting, voted to raise for the support of schools one hundred dollars less than they had appropriated the year before. The giving of more money might, in some instances, induce towns to make less effort to raise money for schools, and thus create indifference. The best kind of assistance, as it seems to me, is to offer inducements for renewed exertions, especially in the direction of supervision. Three times as much money as the State now gives will not enable the small towns to procure and retain teachers that have been trained in our Normal schools; while a much smaller sum, added to a little more which the towns themselves can raise, will give their teachers the constant help of an expert in methods of teaching, and help to raise their schools to that standard of excellence which is shown in the best schools of the State.

Respectfully submitted,

JOHN T. PRINCE.

Dec. 31, 1887.

C.

OUTLINE

OF

AN EIGHT YEARS' COURSE OF STUDY

IN

INDUSTRIAL DRAWING.

WITH NOTES AND ILLUSTRATIONS BY HENRY T. BAILEY, 1888.

OUTLINE

OF

AN EIGHT YEARS' COURSE OF STUDY.

NOTE.—Industrial drawing is a required study in the public schools of the State: (1) because of its educational value; (2) because of its industrial value.

Educational.—Industrial drawing, when rightly pursued, necessitates close and accurate observation, quickens thought, furnishes the pupil with a new means of expression, develops his comparative, originative, and reasoning powers, leads to an appreciation of the beautiful and good, and gives skill of hand.

Industrial.—A practical knowledge of industrial drawing is indispensable in all the mechanical trades, is of great value in every profession and in every-day life. It improves the design and finish of manufactured articles, thus enhancing their value; and its diffusion among all classes of people will create a demand for the *best* in every department of industry.

Throughout the entire course, as here outlined, models and objects should be constantly used, for “correct ideas of things can come only from observing the things themselves.” The forms should be observed by means of both eyes and hands, and the knowledge of form thus gained should be expressed in three ways,—by language, by drawing, by construction.

Language means the expression of knowledge by words, either oral or written.

Drawing, the expression of knowledge by lines, representing the forms.

Construction, the expression of knowledge by forms; *i. e.*, by making the forms themselves.

Dictation and memory exercises should be given regularly throughout the eight years.

FIRST YEAR.

Time: Fifteen minutes each day.

Materials for each pupil: Clay, about eight cubic inches; models of sphere, cube and cylinder; splints or sticks, — six of each primary and secondary color; slate and pencil.

Expression: By construction, — using clay, paper, sticks, etc. Drawing (practising movement first) upon slates and blackboard. Language, oral and written.

SUBJECTS.

FORM. — Teach from models, sphere, cube and cylinder as wholes. Construct by moulding in clay. Further develop observation and expression by moulding simple objects based on them. Study sections, — hemisphere, half-cube, half-cylinder. Mould objects based on them. From these forms teach

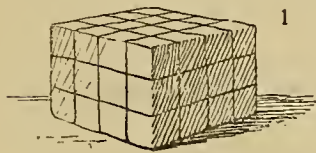
DETAILS OF FORM. — *Surface*, plane and curved. *Face*; *edge*; *corner*, — its picture a *point*. *Line*, — the picture of an *edge*. Kinds of lines, — straight, curved. Positions, — horizontal, vertical, oblique. Relation, — parallel, perpendicular, inclined. Color, — light, dark.

Draw objects and figures containing the above.

COLOR. — *Materials:* Colored worsteds, sticks, paper, crayons, etc. *Subjects:* Test pupils to detect color blindness; teach black, white, yellow, red, blue, orange, green, purple.

DESIGN. — *Materials:* Solids, tablets, sticks. Teach principles of repetition and alternation, making borders and centres.

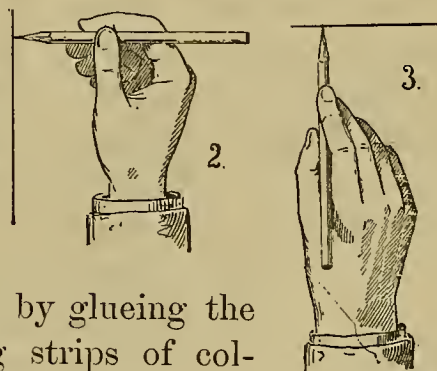
NOTES. — I. Artists' clay is the best. It may be bought dry or ready for use. If the clay is hard, break it up and work it into condition by adding water. When ready for use,



the clay has about the consistency of soft putty. Keep the clay in an earthen jar, or wrapped in moist cloths and surrounded by a piece of rubber cloth or waterproof. The clay should be kept in a cubical mass, and cut with a strong, fine string into pieces of the required shape. Fig. 1 represents a mass of clay cut into inch cubes, ready for distribution. Ordinarily each pupil

should have about one cubic inch of clay for each lesson. After the form has been moulded, select a few of the best to preserve and *mass* the remaining clay. This is accomplished, when the pieces are moist, by pressing them together with the hand, and then dropping the lump again and again on a smooth, hard surface. If dry, moisten the pieces of clay with water, and mass them in a stout cloth.

II. After teaching *point*, teach the positions, — centre, left, right, top, bottom; and the four corners, — upper right hand, lower right hand, upper left hand, lower left hand. Teach next some unit of measure, — “inch” or “half-inch,” — using cubes or tablets as standards. Practise dividing into halves and fourths. Give simple dictation exercises, first with points, then with lines. (See Figs. 7 and 8.) The pencil should be held at right angles to the line to be drawn, and at an angle of 45° with the paper. Fig. 2 illustrates the position of the hand while drawing a vertical line, and Fig. 3 the position while drawing a horizontal line. Sit facing the desk, keeping the edges of the slate parallel with the edges of the desk. No erasing or ruling allowed.



III. Designs may be preserved by glueing the sticks upon a card, or by cutting strips of colored paper to represent the sticks, and pasting them upon a card. Teach cleanliness, carefulness, honesty.

IV. For busy work, allow pupils to represent forms by stick laying. Make sketches of objects from memory, or mould forms from objects.

SECOND YEAR.

Time: Fifteen minutes each day.

Materials for each pupil: Clay, about twelve cubic inches; models of ellipsoid, ovoid, square prism, square pyramid and cone; splints or sticks, — twelve of each primary and secondary color, half one inch long, others two inches long; slate, manila paper and pencils.

Expression: By construction, — using clay, paper, sticks, etc. Drawing, on slates, blackboard and manila paper. Language, oral and written.

SUBJECTS.

FORM. — Review sphere, cube and cylinder, and their sections. Teach from models, ellipsoid, ovoid, square prism, square pyramid and cone as wholes. Construct by moulding in clay. Mould simple objects based on them. Study sections of these forms. From these teach

DETAILS OF FORM. — (Review surface, face, line.)

Angle. Right, acute, obtuse.

Triangle. Right-angled, isosceles, equilateral, scalene.

Square. Diameters, diagonals.

Oblong.

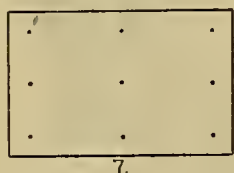
Make *freehand working drawings* of these plane figures and objects based on them. *Construct* them from the drawings, using paper, wood, etc. (See Figs. 16 to 21.) Teach bisect, quadrisect and trisect; also measuring and ruling distances.

COLOR. — *Materials:* Colored worsteds, paper, etc. *Subjects:* Tints and shades of colors, — straw, scarlet, brown, drab, russet, olive, pink. Make scales of color.

DESIGN. — *Materials:* Solids, tablets, colored paper geometric forms, — triangles, squares and oblongs. *Principles:* Repetition, alternation, symmetry.

Arrangements: Borders, centres.

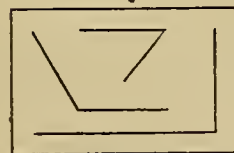
These simple designs may be made for the decoration of aprons, handkerchiefs, box-covers, etc.



7.



8.



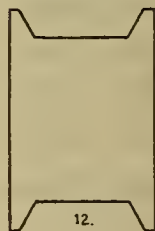
9.



10.



11.



12.

NOTES. — I. Have pupils represent angles by stick-laying, and draw the angles from the sticks as models. In teaching the shapes of faces, — triangular, square, etc., — use the models. Have pupils cut paper to represent the faces. Cut each new form studied. Teach diameter and diagonal by folding paper. Figs. 7 to 12 illustrate simple dictation exercises suitable for this year's work.

II. Study pleasing proportions and effects in form and color, and strive to obtain beauty in all kinds of work, with clay, paper, or pencil. Encourage home work in

constructing objects from the drawings; for example, after Fig. 12 has been drawn from dictation, have it constructed at home. (Also, Figs. 19, 20, and 21.)

III. For busy work, have pupils arrange colored paper forms in pleasing designs. Draw pictures to illustrate simple stories. Cut paper forms to represent common objects.

THIRD YEAR.

Time: Four lessons of twenty minutes each per week.

Materials for each pupil: Clay, about twelve cubic inches; models, same as for second year; colored paper for cutting; manila drawing paper and pencil.

Expression. By Construction, — using clay, paper, wood, etc. By Drawing, — on slate, blackboard and paper. By Language, — oral and written.

SUBJECTS.

FORM. — Review the forms studied during the first and second year, and continue their study by making horizontal, vertical and oblique sections of them. Mould objects based on resulting forms. From these teach

DETAILS OF FORM. — (Review triangle, square, oblong.)

Circle. Semicircle, quadrant, circumference, diameter, radius, chord, arc.

Ellipse. Long diameter, short diameter, foci.

Oval.

Make *freehand working drawings* of these plane figures and objects based on them. *Construct* them from the drawings, using paper, wood, etc. Study beauty of form and line by comparison.

COLOR. — *Materials:* Colored worsteds, paper, liquids, crayons, etc. *Subjects:* Produce secondary and tertiary colors from the primary colors. Study harmony and contrast.

DESIGN. — *Materials:* Geometric forms and their simple combinations, cut from paper. *Principles:* Repetition, alternation, symmetry; strength, order, harmony. *Arrangements:* Borders, centres, and surface patterns.

These designs may be applied to such objects as boxes, card cases, etc.

NOTES. — I. For making sections, use thin, stiff card or isinglass. By such means the clay may be cut more accurately than by using a thread. A piece of fine brass wire is also a good cutting tool.

II. Figs. 13, 14, 15 illustrate dictation exercises suitable for this grade. The guide lines, or construction lines, for each

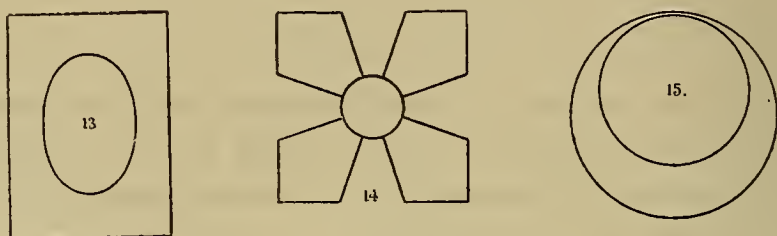
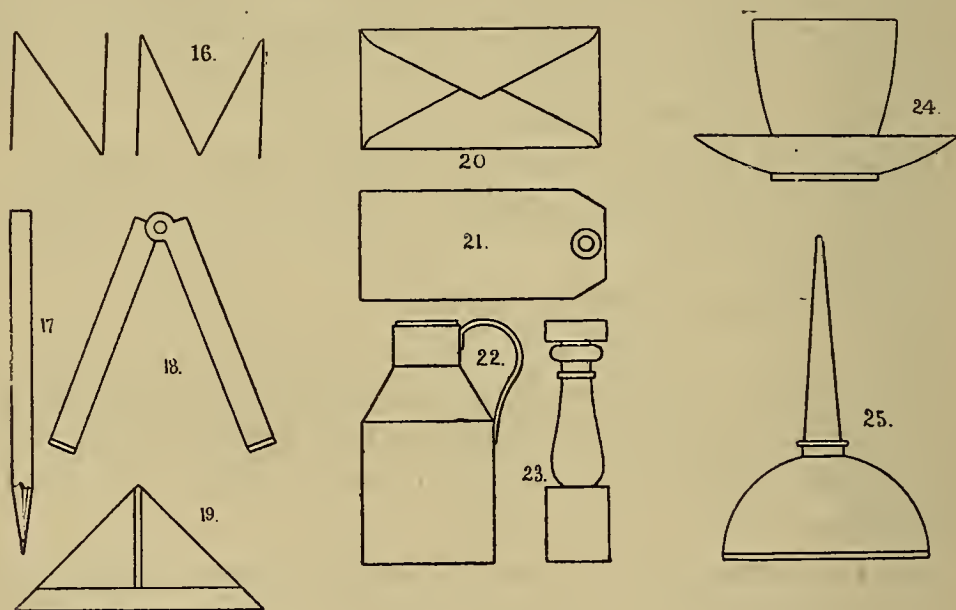


figure should be first dictated. These are not shown in the illustrations.

III. Figs. 16 to 25 represent a graded series of objects suitable for models during the first three years: 16, letters



formed with sticks, containing angles; 17, an object containing parallel lines; 18, an object containing angles and parallel lines; 19, fool's cap, based on the triangle; 20 and 21, based on the oblong; 22 and 23, rectangular forms combined with curved lines; 24, object, containing circular arcs; 25, object based on the semicircle.

IV. Figs. 4 and 5 represent designs for borders, — 4, a second-year design, illustrating repetition; 5, a third-year design, illustrating alternation. Fig. 6 represents a third-



year design for a centre, the units being geometric forms combined. This centre illustrates alternation, and the principles of strength, order and harmony.

FOURTH YEAR.

Time: Twenty minutes four times a week.

Materials for each pupil: Foot rule for measuring, white and manila drawing paper, pencil and rubber.

Expression: By drawing, on paper and blackboard; language, oral and written; construction, using paper, cloth, wood, etc.

SUBJECTS.

FORM. — Study hexagonal, pentagonal and octagonal prisms and objects. From these teach

DETAILS OF FORM. — (Review circle, ellipse and oval.)

Compound curves, Reversed curves, — base, altitude.

Hexagon, Octagon, Pentagon, Spiral, — eye, spire.

Make *freehand working drawings* of these figures and objects based on them. *Construct* them from the drawings, using paper, wood, etc.

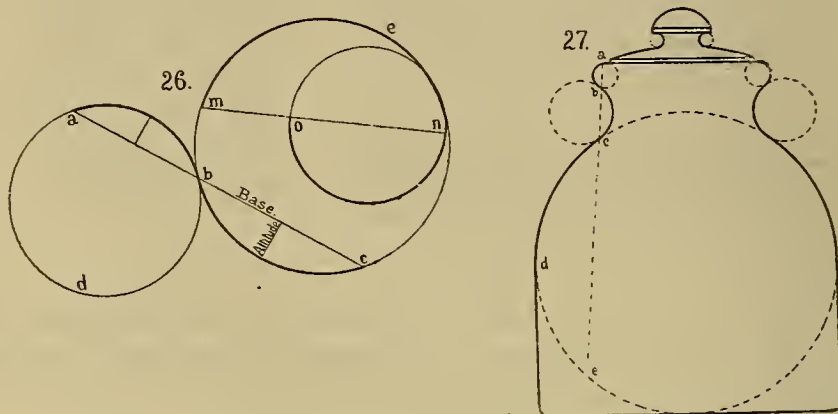
COLOR. — *Materials:* Color charts, water colors and colored paper. *Subjects:* Complementary colors, and harmony and contrast of tints and shades.

DESIGN. — *Materials:* Geometric forms modified; units of colored paper. *Principles:* Repetition, alternation and symmetry; strength, order, contrast, harmony. *Arrangements:* Borders, rosettes and surface patterns.

Strive to make each unit beautiful, and the whole design harmonious.

Ruling lines allowed.

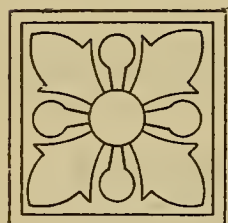
NOTES. — I. Fig. 26 shows how the two kinds of compound curves are formed : m, e, n, o is called simply a compound



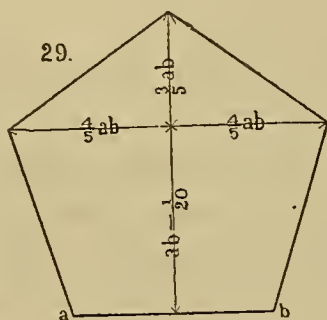
curve ; a, b, c , a compound reversed curve, — or better, a reversed curve. Compound and reversed curves may be circular, elliptical, ovoid or mixed in character.

Fig. 27 represents a jar, in the outline of which reversed curves are found. All the curves in these illustrations are circular.

Encourage home sketching from objects, and drawing forms from memory. Vases, lamp chimneys, shells, a violin, and other common objects, furnish excellent examples of the applications of the curves and the spiral.



28.



29.

equilateral triangles. Obtain the octagon by modifying a square. Fig. 29 illustrates one method of sketching the pentagon. Pen-wipers, silk-reels, pin-balls, etc., are good examples of the application of these forms in objects, and are suitable objects for construction.

III. In design, obtain first the geometric form of the unit, then modify it in such a way as to add to its beauty. Cut a number of these modified units from paper, arrange the design,

II. Show how the hexagon is composed of

trace around the units, line-in the design, paste the units on another sheet, and thus construct the design. Fig. 28 shows a design with modified geometric units.

FIFTH YEAR.

NOTE. — The work of this and the three following years is classified as follows : —

- I. *Working Drawings*, representing the *facts* of form.
- II. *Perspective Drawings*, representing the *appearance* of form.
- III. *Designs* for the enrichment of form.
- IV. *Constructed Objects*.

Time: Thirty minutes three times a week.

Materials for each pupil: White and manila drawing paper, tracing paper, ruler for measuring, pencil and rubber.

Expression: By drawing, language and construction.

From the square prism, triangular prism, cylinder, cube, and objects based on them, make

WORKING DRAWINGS. Freehand. Study plan and elevation. Make simple *developments* of such forms as box cover, hanging basket, wall pocket, etc., and *construct* them from paper or thin card.

From spherical objects, circles, cylinders, cones, and objects based on them, make

PERSPECTIVE DRAWINGS. Freehand. Teach proportional measurement. Study effects of foreshortening and distance.

DESIGNS. — *Arrangements*: Borders and rosettes. *Principles*: Repetition, alternation and symmetry; growth, distribution and harmony. *Materials*: Conventionalized leaves, buds and flowers.

Strive to obtain beauty in outline and neatness in finish.

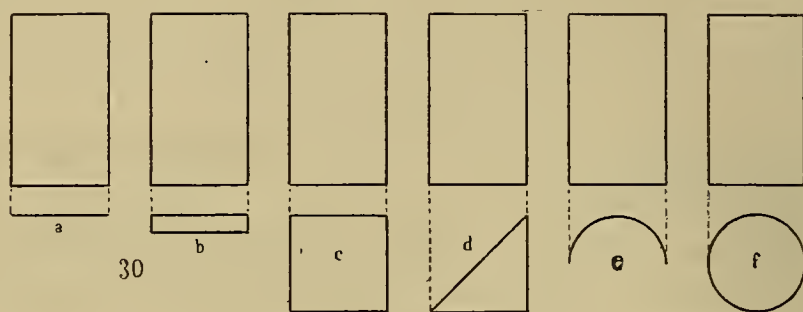
Use rulers and tracing paper. Half-tint backgrounds.

Designs may be applied to pen-wipers, card-cases, book-marks, etc., *constructed* by the pupils.

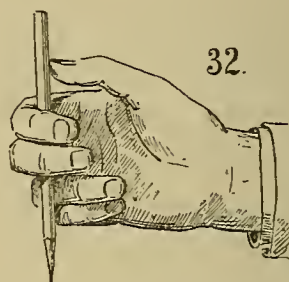
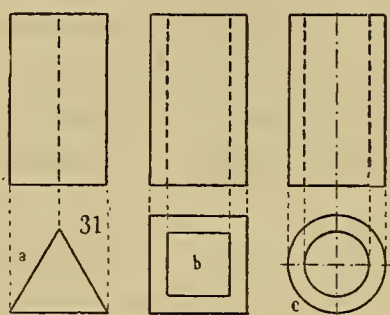
Cultivate taste by comparing examples of good and bad design.

NOTES. — I. Fig. 30 illustrates the necessity of having more than one view of an object, in order that all the facts of

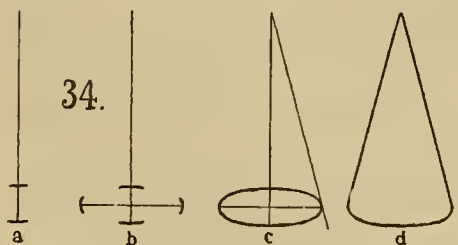
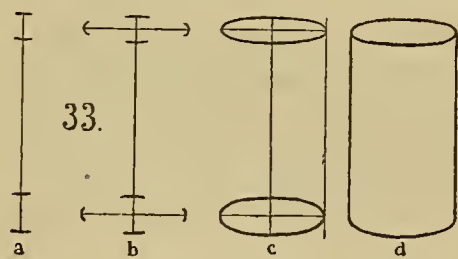
form may be known: a, b, c, d, e and f are alike in *elevation* or side view, and the character of each form represented is deter-



mined by the *plan*, — top or end view. In Fig. 31 the treatment of “invisible edges,” and the kinds of lines used by



draughtsmen, are illustrated. Dotted lines are used for connecting lines; dashed lines for invisible edges and invisible outlines; dot-and-dash lines for centre lines; full lines for visible outlines and edges.



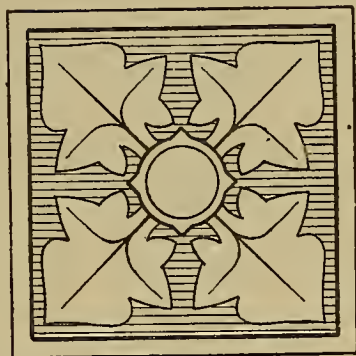
II. Fig. 32 shows the position of the hand and pencil in taking a measurement. Remember that *proportions* only are obtained in this way, *not* actual dimensions. Figs. 33 and 34 illustrate the order to be followed in drawing the cylinder and cone: a (Fig. 33) gives the position of the draw-

ing on the sheet, the whole height, and short diameters of ellipses; b , the long diameters; c , ellipses, sides, sketched

tangent to them; *d*, drawing completed. Always sketch the whole of every ellipse, whether the whole or only a part of it is visible. Line-in only the visible portion.

III. Fig. 35 shows a design similar to those which pupils should produce during the latter part of this year.

The leaf used in this design is the cotyledon of a brake.



35.

SIXTH YEAR.

Time: Thirty minutes three times a week.

Materials for each pupil: White and manila drawing paper, tracing paper, ruler, compass, hard and soft pencil, and rubber.

Expression: By drawing, language, and construction. From cones, pyramids, hexagonal and pentagonal prisms and objects make

WORKING DRAWINGS. Freehand. Study plan and elevation. Two views given to find a third. *Construct* objects at home from the drawings: Study *geometric problems*, and apply in making *developments* of cube, triangular and square prism, etc., and *construct* them from paper or thin card.

From these constructed models, and objects based on them, make

PERSPECTIVE DRAWINGS. Freehand. Study measurement of angles. Effects of foreshortening and convergence of retreating parallel lines. Encourage home sketching from objects.

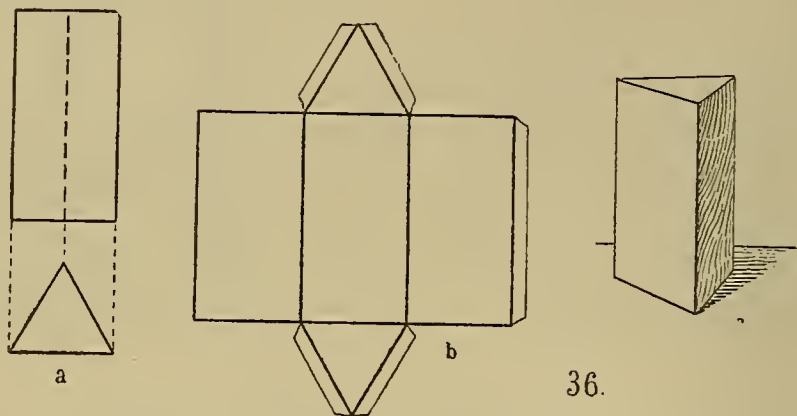
DESIGNS. — *Arrangements:* Radial and bi-symmetrical. *Principles:* Repetition, alternation, symmetry; growth, distribution, unity, variety, harmony. *Materials:* Conventionalized plant form.

Use rulers, compasses and tracing paper.

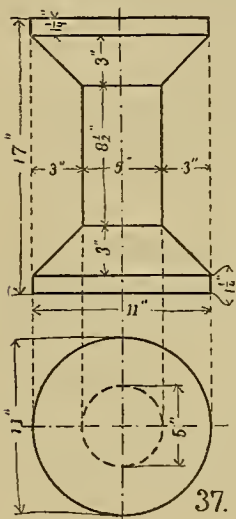
Study examples of good and bad design, and historic ornament, to cultivate taste.

Designs may be applied to pin-cushions, tidies, boxes, etc., constructed by the pupils.

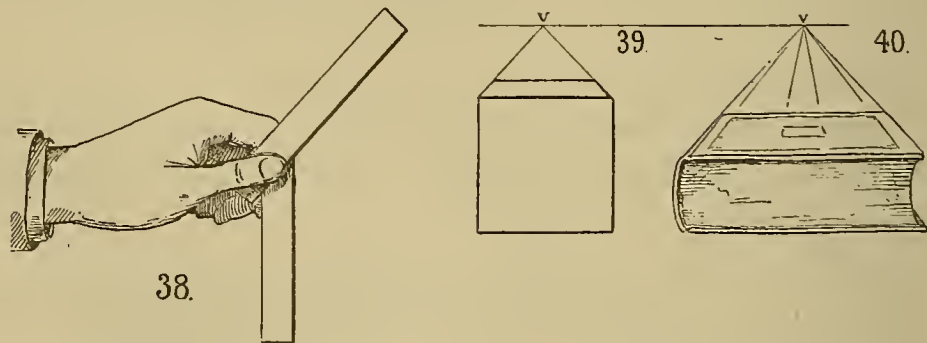
NOTES.—I. Fig. 36: *a* shows the working drawing of a triangular prism; *b*, its development; *c*, the model constructed



by folding the development and glueing the edges. Fig. 37 shows a working drawing of a spool, with the dimensions marked. One “accent” is used to indicate feet, and two to indicate inches. The V points, or arrow points, show how far a dimension extends, and in which direction.

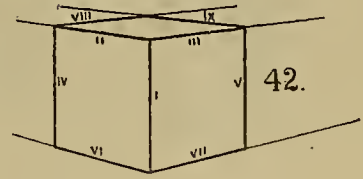


II. Fig. 38 indicates the manner of holding strips of paper when measuring angles. Fig. 39, the convergence of the retreating lines of a cube when one of its faces is parallel with the picture plane. Fig. 40, a book in parallel perspective. Fig. 41 shows the convergence of retreating parallel lines as seen in a cube when its horizontal edges make angles of 45° with the picture plane. Fig. 42 shows the order (indicated by the numerals) of drawing the various lines representing the edges of a cube.



III. Fig. 43 shows drawings of natural and conventionalized plant forms: *a* and *b*, the leaf and flowers of the wild oxalis;

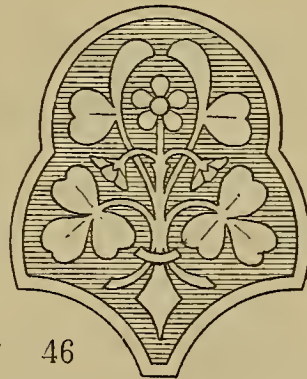
c, d, e, their conventionalized forms; *f* and *g*, the leaf and flower of the bitter-sweet; *h* and *i*, their conventionalized forms; *k* and *l*, the leaf and flower of the virgin's bower, or clematis; *m, n*, their conventionalized forms; and *o*, the front view of the flower conventionalized.



In Figs. 44 and 45 are shown the enclosing forms and main lines for two bi-symmetric designs; and Fig. 46 shows a completed design from the oxalis, similar



to those which the pupils should produce during the latter part of this year.



The order to be followed in making a design is as follows :—

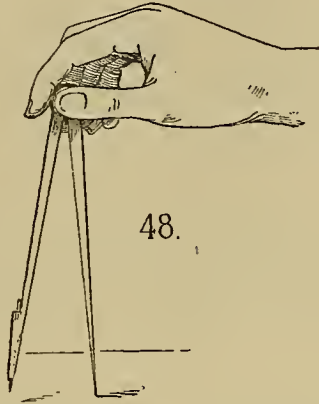
1. Sketch natural plant form.
2. Conventionalize.
3. Draw geometric inclosing form.
4. Sketch main lines.
5. Clothe main lines with units.
6. Erase main lines.

7. Finish. (Line-in, and half-tint the ground or units to give clearness to the design.)

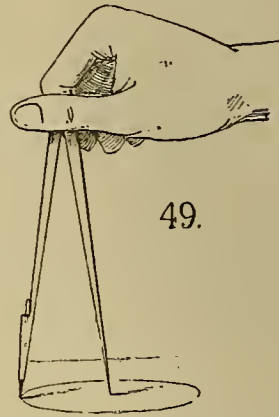
A design is not *good* unless the law of growth is adhered to,



47.

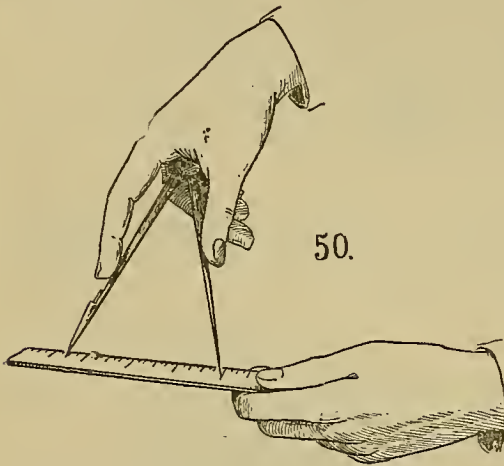


48.



49.

and every detail is traceable to its parent stem and source of growth.



50.

IV. For geometrical drawing, the pencil point should be sharpened as indicated in Fig. 47. The pencil should have a "chisel point." In drawing a circle, the compass should be held by the head, between the thumb and fingers, and the circle described by movement of the fingers. Fig. 48 represents the position before, and

Fig. 49 the position after, the circle is drawn. Fig. 50 illustrates one method of taking dimensions from a scale.

SEVENTH YEAR.

Time: Thirty minutes three times a week.

Materials for each pupil: Manila and white drawing paper, tracing paper, ruler, compass, hard and soft pencil, and rubber.

Expression: By drawing, language, and construction.

From models and objects make

WORKING DRAWINGS. Freehand sketches with dimensions

marked, and accurate drawings from them, using ruler, compass, etc. Draw to scale. Draw *sections* and *developments* of cylinders, pyramids, cones and similar forms. Encourage home *construction* from drawings of such objects as lamp shades, card baskets, etc. Continue *geometric problems* and their applications.

From geometric solids, singly and in simple groups, and from objects, make

PERSPECTIVE DRAWINGS. Freehand. Illustrating the principles of model and object drawing.

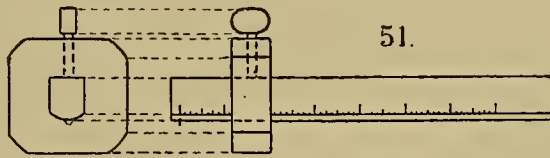
Encourage home sketching from objects.

DESIGNS. — *Arrangements*: Bi-symmetrical and balanced. *Principles*: Growth, distribution, strength, contrast, repose, harmony. *Materials*: Conventionalized plant form.

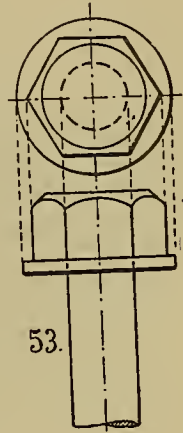
Designs may be applied to brush-holders, wall pockets, match safes and trays, constructed by the pupils.

Study examples of historic ornament, and good modern designs, to obtain main lines. Notice how the principles of growth, conventionalization, etc., are observed in all good designs.

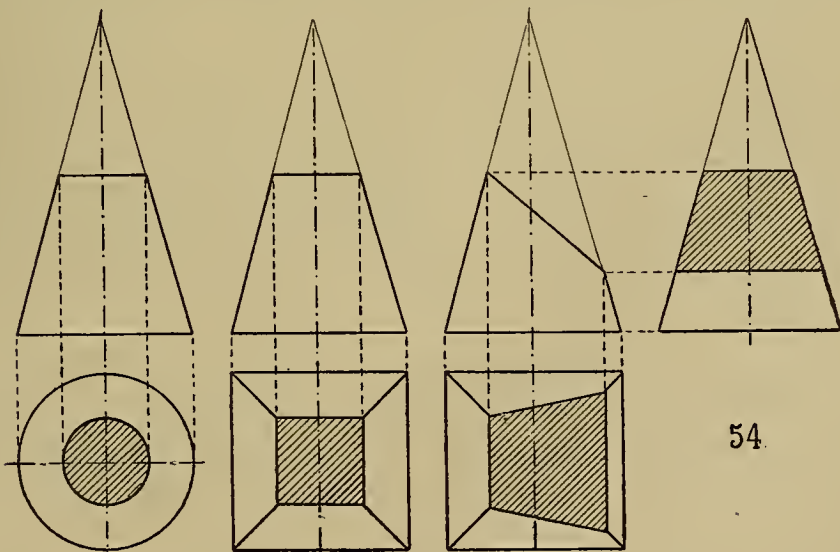
NOTES. — Figs. 51 and 53 represent objects suitable for models in the work of this grade. Fig. 54 shows



51.

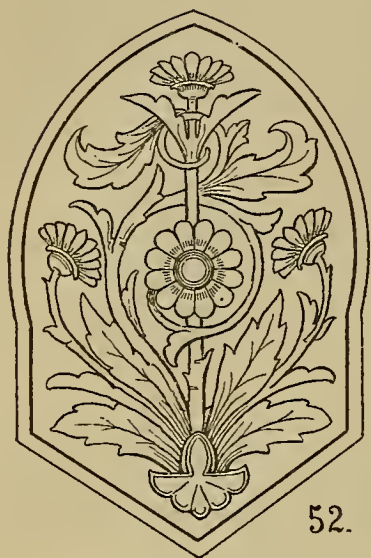


53.



54.

drawings of sections.



52.

The first represents a cone cut by a plane parallel to its base; the second, a square pyramid cut by a similar plane; the third, a square pyramid with an oblique section. This last might more properly be introduced during the eighth grade.

Fig. 52 is a balanced design, from the daisy, in which the principles above mentioned are observed. The growth and distribution are manifestly good.

EIGHTH YEAR.

Time: Thirty minutes three times, or forty-five minutes twice, a week.

Materials for each pupil: Manila and white drawing paper, tracing paper, ruler, 45° triangle, compass, hard and soft pencil and rubber.

Expression: By drawing, language and construction.

From models (architectural and machine details) and common objects make

WORKING DRAWINGS. Freehand sketches with dimensions, and accurate drawings from them. Complete *geometric problems* and their applications. Study more advanced problems in *sections, intersections, and developments*.

Encourage home *construction* from drawings of useful objects, such as boxes, brackets, knife-trays, etc.

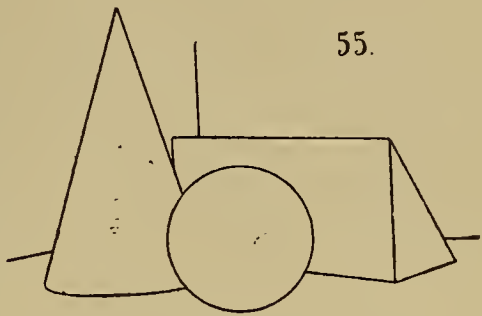
PERSPECTIVE DRAWINGS. Freehand. Principles of model and object drawing further studied from crosses, frames and leaning objects. Study grouping. Draw from groups of common objects.

DESIGNS. — *Principles:* Those of elementary design in connection with those of applied design. *Materials:* Geometric forms and their modifications, conventionalized plant form, details of historic ornament, and natural forms, — crystals, shells, etc.

Study principles of applied design from historic and best.

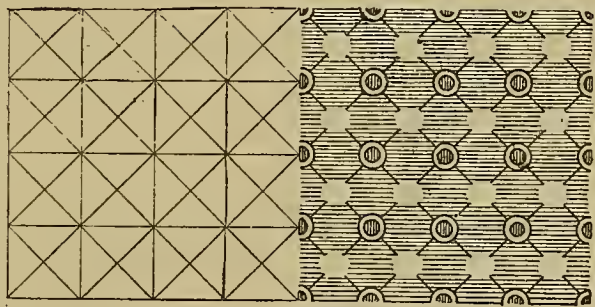
modern examples. Make designs for wall-papers, oil-cloths, prints, tiles, and other objects where methods of construction may be easily understood.

NOTES. — I. Fig. 55 represents a very simple group of models drawn in outline. In drawing a group, sketch first the *mass* of the whole; then the principal subdivisions of the mass by the forms; lastly, the details of each form. Erase unnecessary lines, and line-in the group. Shading may be attempted only after a perfect outline drawing can be readily made.



II. Fig. 56 shows the main lines for a design for a print, and the completed design. In making a repeating pattern, great care should be ex-

ercised in the drawing, so that the square will repeat in any direction without a break in the lines of the design. The units used in the illustration are the circle and the straight line. The



different colors are indicated by half-tinting, white and black; vertical lines in the half-tinting indicating one color, horizontal lines another; etc.

In each grade use drawing to illustrate geography, physiology, botany, and other studies.

D.

FREE TEXT-BOOKS.

BY

THOMAS EMERSON, SUPERINTENDENT OF SCHOOLS,
NEWTON.

FREE TEXT-BOOKS.

In the discussion of this subject I propose, —

1. To show to what extent the laws of the several States have made provision for free text-books, and to what extent the people of the several States have availed themselves of these enactments.

2. To present the advantages and disadvantages that are claimed to result from this plan of furnishing text-books, and to show by the testimony of those who have tried the plan how far these advantages and disadvantages have been realized.

3. To show that free text-books are an essential feature of a system of common schools established and sustained by public taxation, and upon which the attendance is compulsory.

In presenting the first division of my subject, the status of legislation in regard to text-books, I wish to acknowledge my obligations to Mr. C. B. Towle of Vallejo, California, for valuable information that I have obtained from his report on the text-book question, made to the State Teachers' Association of California, December 27, 1883. From Mr. Towle's able report, from correspondence, and from other sources, I learn that in nineteen of the States no provision has been made for free text-books, even for indigent pupils. In eight of the States, viz., California, Colorado, Connecticut, Illinois, Indiana, Maryland, Michigan and Ohio, provision has been made for indigent pupils only. In three cities of Missouri, viz., St. Louis, Kansas City and St. Joseph, indigent pupils are supplied at public expense.

In some of the States in which no provision has been made for free text-books, or in which provision has been made for indigent pupils only, free text-books are supplied, to a greater or less extent, without the authority of law. This is the case

in Delaware, in a few districts of which the commissioners purchase the books, and loan them to the pupils. In a few districts of Hartford, Connecticut, text-books and other necessary supplies are furnished without cost to the pupils. In New York City books and all other supplies are furnished in like manner. In the rest of the State no free text-books are supplied except to indigent pupils.

In California the plan of furnishing text-books is exceptional. So far as I have been able to ascertain, no provision has been made for supplying free text-books, except to indigent pupils. The State compiles, manufactures, publishes, distributes and sells all the text-books used in its public schools. An amendment to the Constitution, adopted in November, 1884, provides that "the Governor, Superintendent of Public Instruction, and principals of the State Normal Schools, shall constitute the State Board of Education, and shall compile or cause to be compiled and adopt a uniform series of text-books for use in the common schools throughout the State. The State Board may cause such text-books, when adopted, to be printed and published by the Superintendent of State Printing, and when so printed and published, to be distributed and sold at the cost price of printing, publishing and distributing the same."

Rhode Island has no special law on the subject, but two of the towns, Bristol and Woonsocket, supply free text-books under the provision of the general statute that authorizes the voting of money for "the support of the schools."

In seven of the States, viz., Maine, New Hampshire, Nebraska, New Jersey, Pennsylvania, Vermont and Wisconsin, free text-books are authorized by law.

In Maine, which was the first State to pass a general statute on this subject, the law provides that "towns, cities, and plantations may raise money to provide school-books for the use of pupils in their public schools at the expense of said town, city, or plantation, or to furnish them at cost to the pupils; and all money raised and appropriated for that purpose shall be assessed in the same manner as other moneys raised for lawful purposes and assessed." Among the cities and towns that have availed themselves of the provisions of this law are Auburn, Bath, Lewiston, Dexter, Orono and Waterville.

Nebraska has no special law upon the subject of raising money for the purchase of text-books. A general statute reads as follows: "The legal voters at any annual meeting shall determine, by vote, the number of mills on the dollar of the assessed valuation, which shall be assessed for all purposes." This general provision has been interpreted to include the purchase of text-books, and in accordance with this interpretation some two or three hundred districts have voted a tax for this purpose, and books have been purchased and supplied without cost to the pupils.

In New Hampshire towns and school districts have the power to raise money by taxation, and furnish text-books for the use of all the pupils in the schools. Only two towns in the State have thus far availed themselves of the provisions of this law.

In New Jersey there is a general law giving each city and school district power to raise by tax such sums of money as may be needed for school purposes. Under this law many of the school districts and nearly all the cities, including Newark, Jersey City, Paterson and New Brunswick, furnish free text-books.

Pennsylvania has enacted special laws by which the cities of Philadelphia and Pittsburgh are empowered to purchase text-books and to supply them without cost to the pupils. The special law authorizing the city of Philadelphia to furnish free text-books was enacted sixty-nine years ago, and has been in operation since that time. Mr. H. W. Halliwell, Secretary of the Philadelphia Board of Education, in a letter written only a few days ago, says: "Text-books have never been purchased by pupils in this city since the establishment of our present system of common schools in 1818." So far as I have been able to learn, Philadelphia was the first city in this country to adopt the plan of free text-books. There is also a general law that gives to boards of directors in cities of the second class the power to purchase text-books, and to levy taxes for such purposes. Boards of directors in many of the districts of the State have availed themselves of the provisions of this law, although it is doubtful if they have the legal right to do so.

Vermont has made provision for the supply of free text-books. The law reads as follows: "Towns may purchase and hold text-books for use in their schools, if the town so votes in a meeting warned for that purpose." This law has

been carried into effect to only a limited extent, although the recent action of the legislature in furnishing text-books on physiology would lead us to infer that public sentiment is strongly in favor of free text-books.

In Wisconsin the text-book law reads as follows: "The electors assembled in annual meeting have power to authorize the district board to purchase text-books for use in the public schools, to be loaned or furnished pupils under such conditions as, by such vote and regulations of the board thereunder, may be prescribed." The law further provides that "a board of education of a city or town may be authorized by the board of aldermen, common council, or trustees, to purchase text-books, and loan them to pupils." About one-third of the districts of the State, and some of the cities and towns, are supplying free text-books in accordance with the provisions of this law.

The laws that I have quoted, you will observe, are all permissive. They leave it optional with each city, town and district to accept or reject their provisions. It is doubtless wise that a question of such vital importance to our system of public schools should be considered carefully and deliberately; that the issue should not be forced upon the people until they have had ample time to examine, to compare, and to judge. But of this there can be no doubt. In nearly all the seven States to which I have referred, the permissive statutes, by furnishing an opportunity for thought and discussion, have wrought a great change in public sentiment, and the cause of free text-books has made substantial progress.

In only one of the thirty-eight States is there a compulsory law upon the subject of free text-books. In only one State does the statute provide that text-books and other supplies needed for use in the public schools shall be furnished without cost to the pupils. Hence, in only one State are the public schools absolutely free schools. That State is Massachusetts. To her belongs the high honor of furnishing to the world the first model of a free public school. To-day she stands alone; but the time is not distant, I trust, when her sister States will one after another range themselves by her side, until every State shall realize in its fulness the American idea of common schools maintained by public taxation and absolutely free.

The history of the Massachusetts statute is not without interest, and is full of encouragement. As early as 1826, towns were required to furnish school-books free of charge to indigent children. In 1873 the legislature passed a law permitting any city or town to authorize its school committee to furnish text-books to all the children in the schools free of cost. In March, 1884, the present compulsory law was passed. The following is the text of the law : —

SECTION 1. The school committee of every city and town shall purchase, at the expense of said city or town, text-books and other school supplies used in the public schools, and said text-books and supplies shall be loaned to the pupils of said public schools free of charge, subject to such rules and regulations as to care and custody as the school committee may prescribe.

SECT. 2. Pupils supplied with text-books at the time of the passage of this act shall not be supplied with similar books by the committee until needed.

SECT. 3. This act shall take effect on the first day of August, 1884.

This statute is similar to that of 1873. The chief difference is that the law of 1873 is permissive, while that of 1884 is compulsory.

The school report of the town of Westfield, Mass., for the year 1886, gives a brief sketch of the history of this ordinance. I quote it because it represents the spirit that prompted the enactment of the law. It is as follows : —

“The law of 1884, requiring the municipalities to furnish free text-books to the public schools is generally accepted as a wise and beneficent provision. It took more than a decade for the friends of the measure to obtain the desired legislation. The first effort made in the legislature to accomplish so desirable a result was in 1868. It was so unpopular that not a single member of the Committee on Education would favor the measure. The question was discussed and commented on by the newspapers, but no active measures were taken by the legislature at any session until 1873, when a permissive act was passed. Several cities and towns took advantage of the act, and all so doing before the system had been long in use expressed the wisdom of its policy.

“In the discussion of the question, it fell to the lot of this town to be represented by a man whose father, with a large

family of children, found the last cent in demand for their support. The question of free text-books was new to the representative, but the arguments in favor brought vividly to mind the first day he ever attended school. As soon as an opportunity offered he spoke as follows: "I remember the first day I went to school. The mistress came and put her hand on my head and said, "You are coming to school, my little man, are you?" I said yes. She said, "Where are your books?" I replied that I had no books; that my father was a poor man, and that he said all he could do was to get bread for us. The teacher turned to a boy sitting near me and said, "Perhaps you will allow the little boy to look over with you?" He kindly consented, and the little learning I have I obtained from borrowed books.' The effect of the speech was magnetic. He had risen from the class for which the free text-book is especially needed and understood fully its necessities."

The following are some of the advantages of the system of free text-books.

1. It effects a saving of time. Under the system of individual purchases, a delay of a week, or even more, is not unusual at the opening of the school year. This loss of time involves a large loss of money. Allow me, as a matter of convenience, to illustrate from the schools under my supervision. The city provides instruction for about four thousand pupils. The cost of the schools, exclusive of the interest on the money invested in land and school buildings, is, in round numbers, five hundred dollars a day, reckoning two hundred school days to the year. Viewed from this point, a week's delay becomes a matter of grave importance. With free text-books the work of the schools may begin at once. There need not be a delay of a single hour.

2. It secures a better classification. Not only is the long delay incident to the organizing of the classes prevented, but it enables the teacher to make a better classification of his school. "The pupil is examined, his qualifications are considered, and then suitable books are given. Formerly parents bought larger books for the older children, and refused to buy smaller books for younger ones. Thus, many pupils suffered from want of proper classification." This evil is felt most keenly in country schools. To this class of schools free text-books have proved a great boon, enlarging the opportunities of pupils and relieving the teacher of many cares and perplexities.

3. It effects a saving of expense. First, the cost of the books is less. The pupil pays retail prices or a considerable advance upon retail prices; the city or town buys at lowest wholesale prices. On account of the exceptionally large discount allowed on text-books and other school supplies, the difference between these prices is considerable, sometimes amounting to from twenty-five to fifty per cent. of the retail price. Again, free text-books are used until they are worn out. In the case of individual ownership, they are often thrown aside after being used for a few months or possibly a year.

4. It cultivates in the pupils the habit of respect for public property. The pupil is required to use the books with care, and to return them without spot or defacement. He thus forms habits that will exert a healthful influence upon his character, and it is a matter of no slight importance that he has an opportunity to form these habits under the direction of a teacher. This is a moral advantage whose value cannot be estimated in dollars and cents.

5. It secures uniformity of text-books. Plans for town, county and State uniformity have been proposed from time to time, have been discussed and adopted, and, after a brief trial, have been discarded. This plan secures uniformity at once. Indeed, uniformity is one of its essential features.

6. It secures to the schools better books and appliances, and a larger variety of them, and thus leads the way to greater flexibility in the work of the school-room. A single case will be sufficient for illustration. In the schools of Newton, each of the primary grades is furnished with a variety of Readers, and most of the pupils read ten or more different Readers during each school year. The grammar grades are each furnished with one or more Readers, and with a large variety of miscellaneous reading, bearing more or less directly upon the prescribed work of the school. Among these are included Dodge's Stories from American History, Miss Andrew's Seven Little Sisters and Each and All, Hooker's Book of Nature, Scudder's Book of Fables, Robinson Crusoe, Swiss Family Robinson, Kingsley's Water-Babies, Hawthorne's Wonder Book, Abbott's La Salle, Peter Stuyvesant and Miles Standish, Towle's Magellan, Vasco de Gama and Sir Walter Raleigh, Cooke's Stories of the Old Dominion, Hawthorne's True Stories of New Eng-

land History, Hans Brinker, and Miss Alcott's Little Women. In the High School, each pupil in the general course studies four or more authors a year, beginning with Whittier's Snow Bound, Longfellow's Evangeline or Tennyson's Enoch Arden in the fourth class and ending with Milton or Shakespeare in the first class. So liberal a supply of books as this would be impossible under the system of individual purchase, for no School Board would have the hardihood to ask a parent to buy ten Readers for his child in a single year. The system of free text-books can be justified abundantly on economic grounds ; but a still stronger justification will be found in its beneficent influence in broadening and deepening the scope of the work and the methods of instruction in our schools.

7. It increases school attendance, and removes caste distinctions. The purchase of school-books for a large family of children imposes a heavy tax upon the parents. In many instances this tax becomes a greater burden than the parents are willing or able to bear, and the children are taken out of school at an early age or are compelled to wear the badge of pauperism by having their books supplied at the public expense. The system of free text-books recognizes no distinction between the child of poverty and the child of wealth. Under its beneficent operation the public school is free to all. Of the large number of children who are now in the lowest grade of our schools, only a very small percentage will continue until the highest grade is reached. The good effects of free text-books will appear in the constantly increasing number of those who persevere to the end. The longer children continue at school, the better prepared are they to discharge intelligently the duties of citizenship. Hence, every day that is added to the duration of school life is a positive gain to the Commonwealth.

"It may seem strange," says Prof. Homer B. Sprague, in discussing the effects of the cost of school-books upon school attendance, "that so slight an expense, say from two to six dollars a year, should keep any out of the public schools ; but those who are in the habit of visiting the wretched abodes of the poor, and see how hard it is for many of them to get employment, or earn money enough for the bare necessities of life, know very well that multitudes of parents cannot pay for their children's books.

“Of course, it is impossible to ascertain exactly how many are thus kept out of school, but we may gain some light on this point from the history of the abolition of rate-bills. Rate-bills were a money tax paid for tuition in the public schools. Every child, except those excused for extreme poverty, paid for tuition a sum proportioned to the number of days he attended. This rate-bill existed in about half the towns in Connecticut in the year 1867; its amount was limited by law, in grades below the high school, to six dollars a year. The usual amount of the rate-bill, or tuition tax, paid by each child in those schools was from two to three dollars. In the year 1868, it was the good fortune of the writer of this essay to aid in the complete abolition of that tax, so removing that apparently slight barrier to school instruction.

“What was the result? The official report of the secretary, Dr. Northrop, of the year 1869, shows that the actual increase in school attendance during that year was about six thousand pupils, though there was no perceptible increase in the total population of the State. The next year there was another increase of about five thousand. Secretary Northrop, in express terms, attributes this increase to the removal of the rate-bill. About eleven thousand pupils, then, in Connecticut, prior to 1869, had been kept out of school by the rate-bill, although its average amount did not exceed three dollars a year.

“Is it objected that the experience of Connecticut is peculiar? Take a very different community — California. In 1866, a rate-bill existed in many towns in that State. The amount paid by each child for attendance was, on an average, about twenty-five cents a month, or two dollars and a half during the school year of ten months. In 1866 the rate-bill was abolished by law in California. The consequent increase in attendance was six and one-half per cent. In other words, a number equal to one-sixteenth of the entire school attendance had been debarred from instruction by the slight tax of twenty-five cents a month.

“Is further evidence needed to show that many children are kept away from school by the requirement to pay two or three dollars a year? Take the State of New York. Five days ago, wishing to ascertain the facts with precision, the writer consulted the highest authority in that State, Hon. S. B. Woolworth, now and for many years past the secretary of the Regents of the University of the State of New York, and whose business it is to know all the facts pertaining to education in that Commonwealth. There was received from him, in answer, the following statement under date of Albany, N. Y., Dec. 24, 1878: —

“ ‘The rate-bill was abolished by law in New York in the year 1867. The increase in attendance in the public schools, consequent upon this abolition of rate-bills, is estimated at 22,000 the first year, 50,000 the second year, and 78,000 the third year. The average amount of tuition, *i. e.*, the average amount of the rate-bill, was perhaps \$2.75.’

“ There is no resisting the conclusion from such facts as these. If in California a number equal to one-sixteenth of the whole attendance ; if in Connecticut, eleven thousand children ; if in New York, seventy-eight thousand children, all of whom had been growing up in ignorance, were drawn into public schools by exempting them from the payment of twenty-five or thirty cents a month for tuition, then it is safe to conclude that there are multitudes who would be likely to be drawn into the public schools by exempting them from the payment of an equal sum for books and stationery.

“ Here we may be allowed to speak a brief word for those who are too humble or too feeble to speak for themselves. Indeed, they cannot speak without bringing upon themselves new shame. Their tender love for their children, their ardent desire to secure for them a better lot than that of their parents, prompts the sending of them to the public school. But they have not even money enough for bread and decent clothing, and they cannot buy books. Private charity does not supply them and is totally inadequate to supply them. For such, the public schools are not free ; they must make the humiliating confession of utter poverty before they can receive the boon of instruction. This undeserved shame is the price they and their children must pay for education. They recoil from the idea of ‘coming upon the parish.’ No laceration more cruel of the feelings of a sensitive parent or child can be found. More than once during the past four months I have been made the unwilling witness of the distress of parents who had seen better days, but who now begged me, with tears, to supply their children with public books, and to keep concealed the fact of this mortifying dependence upon public charity. Is it supposed that they do not feel it, because they say nothing about it ? because they do not parade their grief in the newspapers ? because they do not tell the world of their shame and wretchedness ? They do feel it keenly. Let the supply be free to all, and you visibly lift thousands of heads now bowed with this unmerited disgrace ; you visibly lift many thousands of children above the degradation of confessed pauperism. Put them on a level with their more favored companions, they at once become less servile, less abject, more hopeful ; they will grow to be manlier men and womanlier women ; in time of public danger they will,

uphold with a stronger arm and a more loving patriotism, the hand of the Commonwealth that has so gently and generously led and lifted them in their hour of weakness."

Objection is made to the system of free text-books because it increases taxation. What if taxation is increased? Can any one name a more legitimate purpose for which to levy taxes? Can any one name an investment that will yield a better income? Is there not an adequate return in the increased general intelligence and morality of the people; in their improved thrift, enterprise and self-respect, and in the greater prosperity and security of the State?

But it will be said that it is better for pupils to buy and own their books; that this ownership is necessary to the cultivation of habits of independence and self-reliance; and, moreover, that school-books are convenient for study and reference after one's school-days are ended; indeed, that in many of the humble homes, especially in the rural districts, the Bible and the school-book are almost the only books that are available. In answer to this objection I would say that any pupil who wishes to buy and own his books is at full liberty to do so. If he wishes to preserve them, that they may be a solace and delight to him in his old age, and that he may transmit them to his children, the system of free text-books will in no manner interfere with this sentiment. Indeed, the purchase of them will be all the more creditable to him, in that the act is no longer compulsory.

Again, it is claimed that the reasons urged for supplying school-books at the public expense apply with equal force to the furnishing of food, shelter and clothing. This argument ignores the principle upon which the law is founded. The State makes the education of its youth compulsory, and thereby makes school-books a necessity; while food, shelter and clothing are a necessity independent of State enactment. Furthermore, the State requires the school authorities to prescribe the books that shall be used, and prohibits the use of all others. It leaves to the citizen no option whatever. Under these circumstances the duty of the State is plain. Having made school-books a necessity, by making attendance compulsory, it

cannot neglect to make them free. If it was justified in taking the first step, the second follows as a logical sequence. Compulsory education and free text-books must stand or fall together.

The system of free text-books is not an experiment. It has been in operation in Philadelphia, as has already been stated, nearly seventy years; in New York City more than fifty years; and in Newark, Jersey City, Paterson and New Brunswick, N. J., for many years,—the exact number I have not been able to ascertain. It has also been tested for a longer or shorter time in a multitude of other widely separated localities. To what extent the advantages claimed for it have been realized, let those who have had experience of its practical working testify. The testimony given here is taken from C. B. Towle's report on "The Text-Book Question" in 1883; from the report of J. W. Akers, Superintendent of Public Instruction of the State of Iowa, for the biennial term ending June 30, 1885; from school reports generally, and from letters I have received personally in reply to recent inquiries.

The city of Philadelphia, which was the first to adopt the system of free text-books, may justly claim the right to be the first witness. The Controllers of the Public Schools of the City and County of Philadelphia, composing the First School District of Pennsylvania, in a report dated June 30, 1843, say:—

"Much discussion has taken place on the subject of supplies, particularly the item of school-books and stationery. The attention of the Controllers has been much engaged in endeavoring to secure a decrease in this branch of expenditure, but hitherto with little effect. To discontinue altogether the supply of books and stationery would, it is believed, materially impair our system of public instruction, as it would drive from the schools a large number of children of that class which it is equally the interest and the duty of the Commonwealth to educate."

In another report upon the same subject the Controllers say:—

"It has been the earnest desire of the Board of Controllers to reduce the expenses of the schools to the lowest point which would maintain their efficiency and usefulness. Among other modes of

economizing, the withholding of the supplies of books and stationery has attracted most of public attention, and has been the subject of consideration with the Board. Hitherto they have thought any change in this respect unadvisable. There will always be a large number of pupils unable to furnish their own supplies. To determine who these are is an individual task; and when determined, it introduces distinctions prejudicial to the welfare of 'Common Schools.' The expense of supplies to each pupil is, however, far less than is generally supposed. The annual expense of supplying books and stationery is about seventy cents to each pupil."

H. W. Halliwell, Secretary of the Board, under date of May 24, 1887, writes :—

"The cost of books and other supplies, for many years, has ranged from eighty cents to one dollar per pupil."

You cannot have failed to observe the humane element that pervades these reports. It is in entire accord with the spirit of the act of the Legislature of 1818, whose object was to provide for "the establishment of schools throughout the State, in such manner that the poor may be taught gratis."

State Supt. J. P. Wickersham, of Pennsylvania, says :—

"On the whole there seems to be no better way of treating this subject of text-books than for boards of directors to furnish them, as they do school apparatus and appliances, free to all pupils attending school." "Philadelphia," he adds, "has furnished books to the schools with other supplies, for many years, and all the leading school men of the city approve the plan."

Supt. John Jasper, of New York City, writes :—

"The board of education furnishes all pupils in the public schools with books and school supplies free of expense, and this merits the hearty approval of the citizens of New York City."

State Supt. E. A. Apgar, of New Jersey, writes :—

"Nearly all our cities furnish text-books free of cost to the children. We have fifteen hundred school districts in the State outside the cities, and about four hundred of these furnish free text-books. It is my endeavor to get all the districts in the State to adopt the policy which now prevails in so many.

Supt. William N. Barrenger, of Newark, N. J., where free text-books have been furnished for more than twenty-five years, writes : —

“We have furnished our pupils with books, slate-pencils, chalk, etc., for many years. It has cost on an average about forty-five cents a year for each pupil. We like the plan very much. Its advantages, are many. I will name a few of them: cheapness, convenience, uniformity, complete control of the course of study, and removal of all excuses for non-performance of work by pupils.”

Supt. George H. Barton, of Jersey City, writes : —

“For many years free text-books have been furnished to the pupils in the public schools of this city. This plan has proven very satisfactory. The cost per pupil has varied from fifty cents to one dollar twenty-five cents per year for books and stationery.”

State Supt. N. S. Luce, of Maine, in his report for 1884, says : —

“The only plan that has proved itself invariably to answer all the conditions of the text-book problem is the ‘free text-book plan. Whenever tested in our State and others, by towns and cities, it has been found so advantageous to parent, pupil, and school that it has never been discarded. We should follow the example set by our mother State in this regard, and settle this perplexing text-book problem once for all, by an enactment compelling all towns to furnish necessary books free of expense to all pupils attending the schools. We should thus make common-school education free in reality as well as in name.”

State Supt. Robert Graham, of Wisconsin, in his report for 1884, says : —

“Very few districts have voluntarily undertaken to furnish free text-books to pupils. Some cities have done so, and the result has coincided with experience in other States, and proved of great advantage. Increased attendance, uniformity, prompt supply, better classification, and very much reduced aggregate expense are some of the fruits of the measure wherever tried.”

Supt. Albert Hardy, of La Crosse, Wis., writes : —

“There is no opposition to the plan. These are some of the advantages: It increases the regularity of attendance. It increases

attendance in higher grades; more children get a better education. It makes the schools free, indeed; puts the poor man's child on an equality with the rich man's child; all are supplied alike. It is an educational force; it teaches the responsibility and care of property."

State Supt. Justus Dartt, of Vermont, writes: —

"One town, Hartford, has furnished free text-books, and the people like the plan very much. Scholars are provided with free use of the books at much less cost to the tax-payers than if each family purchased its own. The matter of text-books troubles us in Vermont very much. They cost too much and we have too many kinds in the schools. I believe the only way out of the difficulty is for towns to purchase the books and give scholars the use of them."

Supt. N. W. White, of Hartford, Vt., writes: —

"The plan of furnishing books to the pupils works well with us thus far. It secures a uniformity of books. The poorest pupils are as well supplied as the richer. Teachers like to teach here, because the schools are well supplied with books. With good teachers the books are well taken care of; with poor teachers the books are more or less abused, just as other school property will be abused unless there is sufficient discipline. I have never heard any complaint from tax-payers upon this point, more than upon other school expenses. In my judgment, it would cost double or more for the pupil to buy his own books. My own individual opinion is most decidedly in favor of the plan."

State Commissioner Thomas B. Stockwell, of Rhode Island, writes: —

"Two of our towns, Bristol and Woonsocket, supply free text-books. The former has always done so, the latter for about five years. In both places it is a success."

Supt. E. E. Thomas, of Woonsocket, R. I., reports: —

"It is found that the average cost of text-books for the past four years has been sixty-six cents per pupil. We have never lost a book, except by the usual process of wear and tear. I do not know of a single disadvantage connected with the plan. The system works perfectly in every respect and none of us would give it up."

Hon. Hugh Harbison, of Hartford, Conn., in a letter received only a few days ago, says : —

“The expense of supplies furnished to the schools of the South School District, while I was chairman of the committee, averaged from seventy to seventy-five cents per year for each child enrolled in the school. Our district was the first to adopt the system, but other districts soon followed our example. I have faith in the system if it is properly handled.”

The testimony presented thus far comes from States in which there are permissive laws in regard to furnishing free text-books, or from those that furnish them without the authority of law. It might be extended indefinitely. Indeed, so far as I have been able to learn, not a city, town or district that has once made trial of the free text-book plan has ever abandoned it.

This testimony to the value of the system is fully corroborated by the experience of Massachusetts, both under the permissive statute of 1873, and under the compulsory law of 1884.

Supt. William Connell, of Fall River, which, it will be remembered, was one of the first cities in the State to avail itself of the permissive law of 1873, writes : —

“We believe in the system most heartily, and it gives very excellent satisfaction to all parties concerned.”

“Thus far,” says Supt. G. I. Aldrich, of Quincy, “the free text-book plan with us has been entirely successful.”

Supt. Henry S. Maxson, of Attleborough, in his annual report for 1886, writes : —

“The third year’s experience under the free text-book law has only made its advantages more apparent. It necessarily entails much additional work on the superintendent and teachers, but it is work that is willingly done, in view of the additional effectiveness of the schools, gained by reason of their needs being always fully and quickly supplied. The new plan is specially valuable in the training it gives the pupils in neatness and carefulness in the use of their books, there being more sense of responsibility in using books that are loaned them than there was when they used their own books, and

the teachers being required to exercise closer supervision of their use. Above all, the schools are now absolutely free, and there is no obstacle of pride or necessity to stand in the way of the attendance of the poorest child because of the need for books. The general economy of the free system can be readily seen by any parent who formerly bought books and school supplies for his children if he will compare the annual cost then with ninety-nine cents, the cost per pupil this year. He should also bear in mind that this includes, besides books, chemicals, and drawing instruments for the high schools, brooms, pails, dusters, crayons and everything else in the nature of supplies needed to conduct the schools. While some teachers are less careful than others, the books are, as a whole, carefully used and cared for."

The school committee for New Bedford, in the school report for the year 1885, says : —

"Your committee volunteers no opinion, at this time, as to the relative value and expediency of the text-book law. It has not been in operation long enough to authorize the formation of settled conclusions. There may be latent evils which will develop themselves in due course of time. But there are certain points which are patent in its favor.

"1. The system is easily managed, and the schools begin the work of each term with a prompt completeness of arrangements not attainable before.

"2. The aggregate cost of books and supplies is several thousand dollars less than when each pupil was furnished through private means, and the community at large is benefited pecuniarily to a corresponding extent.

"3. There has been an increased attendance on the public schools, which, especially as regards the high school, must be attributed in part to the release of parents from the cost of text-books."

Supt. A. P. Stone, of Springfield, in his annual report for 1885, says : —

"The practical working of the free book system is realizing, I think, some of the advantages claimed for it by its friends at the time of the passage of the law providing for it.

"Books are furnished more promptly than when pupils purchased their own, and consequently the school work suffers much less delay and interruption. Formerly one or two weeks or more would elapse at the beginning of the school year, or whenever new text-books were to be taken, before all pupils could be supplied.

“Books are better cared for. During the entire year, just closed, the total damage done to the books in all the schools, which the teachers thought unnecessary, and which should be paid for, amounted to only \$8.31.

“Books, when finished by one class of pupils, instead of being thrown aside without further use, as is the practice under private ownership, are now used by successive classes until worn out, thus utilizing their full value, and making in the aggregate a large saving to the community in the item of text-book expenditure.

“A variety of text-books is often desirable for a change, and for exchange, and to secure freshness of interest on the part of pupils and teachers. It has often been found, under the former practice, that promotions, which seemed desirable for the good of the school and of the pupils, have been delayed on account of the expense of new books they would involve. The free book plan solves both of these problems without extra expense.

“There can be no doubt that the attendance upon the schools has been increased by the law we are now considering. There are certainly some, and probably many, pupils now in the upper grades of the grammar schools and in the high schools, whose parents, owing to their limited means, do not feel able to meet the expense of text-books, which are more costly in those grades than in the lower schools, and who, in the absence of this law, would feel compelled to withdraw their children from the schools. During the fall term just closed, the school enrolment was greater by two hundred and three than that of the corresponding term of last year; and the actual daily attendance was, also, more than two hundred greater for each month of the term.

“Under the former practice of furnishing free text-books to those only who declared their inability to pay for them, an odious distinction was made in the schools, which sensitive children and parents could not ignore nor rise above. That feeling has now disappeared, and I do not now hear remarks such as were sometimes made when the passage of the law was under agitation, the import of which was that those who received free text-books from the city would place themselves in the attitude of paupers. Perhaps it has finally occurred to such persons that they and their children, whenever they have attended the public schools, have received from the city (or town) the free rent of a school-house, with its furniture and appliances, and the free services of a teacher. The school becomes free indeed, when its entire expense is borne by the public.”

Again, in his annual report for the year 1886, Supt. Stone says: —

“Free text-books and supplies are now almost wholly in use by the pupils of the schools, there being very few who own their own books. I think the practical working of this plan in Springfield, as throughout the country, is receiving the approval and support of many who at first were doubtful of its expediency, or who were opposed to it. Excluding the Drafting School pupils, who have only a few supplies and no text-books, the cost per pupil during the past year has been eighty-eight cents and two mills. This covers the entire expense of text-books and supplies of every kind, and the cost of distributing them among the schools.”

Secretary J. W. Dickinson, of the Mass. State Board of Education, in his report of 1885, says: —

Before the act of 1884 was passed sixteen towns in the Commonwealth had voluntarily adopted the free text-book system. In all cases of fair trial, the most satisfactory results have been produced.

The few objections that have been made to the free system are:

1. It prevents the children from owning the books they use, and from preserving them for the future.
2. It cultivates a spirit of dependence.
3. Contagious diseases may be communicated by second-hand books.
4. Why not furnish board and clothes as well as books?
5. It requires the expenditure of a large amount of time in purchasing and distributing the books and supplies among the schools.

These are the objections usually made.

The use of the free text-book system does not prevent a pupil from becoming the owner of the books he studies, nor, if that were possible, of preserving them. This may be done even at less expense than under the old system.

Experience, however, has proved that school-books are generally worn out by the use to which they are subjected in the school-room, and that future reference is more profitably made to new books, representing the latest phase of human thought on the subjects of which they treat. Old school-books are interesting relics. They are even useful as occasions for reviving old associations; but they are not always safe guides in the acquisition of new knowledge. School-books should be bought for present use, as they will be quite surely out of date when the future arrives.

If the statement that the free text-book system takes away the manly feeling of independence, which should be strong in every mind, has any force, it presents an argument against the whole system of free schools. Why is not the manly spirit corrupted by furnishing

free teachers, and free school-houses, and free apparatus to be used as the means of teaching? On what principle may we furnish everything else free with good results, but cannot furnish free books without harm? As a fact, neither are the schools nor the means of study free to the people in any absolute sense.

The expense of supporting them is borne by those for whose benefit they were established. This is done by a general tax levied in such a manner that the burden of support is made to rest equally on all. With this understanding the people accept their free school privileges not as a charity, but as a gift presented by themselves.

Free text-books have been used for many years in some of the towns in our own State, and in some of the cities and towns of almost every other State in the Union. No complaint has hitherto been made that these books are the media through which disease is actually communicated.

The sanitary objections to the use of second-hand school-books may be more reasonably urged against the use of books drawn from our circulating libraries, and handled by persons exposed to all the conditions of social life, or against paper money, that by its associations may become the media of many kinds of exchange.

It should not be forgotten that the legislature has passed stringent laws regulating the attendance of children who are suffering with contagious diseases, or who have been exposed to them; and that the free text-books are all committed to the care of the teachers of the schools.

[Chap 198, Acts of 1885.]

The school committees shall not allow any pupil to attend the public schools while any member of the household to which such pupil belongs is sick of small-pox, diphtheria, or scarlet fever, or during a period of two weeks after the death, recovery or removal of such sick person. Any pupil coming from such household shall be required to present, to the teacher of the school the pupil desires to attend, a certificate, from the attending physician or board of health, of facts necessary to entitle him to admission in accordance with the above regulations.

The Iowa State Board of Health sent out the following circular letter to about four hundred physicians residing in Iowa and other States : —

“ The State Board of Health is desirous of obtaining sufficient material for the issuance of a report on the communication of contagious diseases by means of second-hand school-books. Will you have the kindness to send in the enclosed envelope all the facts bearing on this subject, occurring in your own practice or that of others known to you.”

In response about two hundred and fifty opinions were received from physicians in different parts of the United States, who, however much they may disagree upon other subjects, were unanimous in this, that there is no doubt that diseases may be communicated by this means, but they know of none nor have they heard of one.

“The only approach to anything of value comes from a physician in Michigan, who relates a case of scarlet fever communicated by means of a novel which was read by a young lady, convalescent from scarlatina, and which was afterwards loaned to another. From the best information I can obtain, I am strongly inclined to the opinion that of all methods by which disease is communicated, that by second-hand school-books is the least to be expected. Upon the approach of physical disorder the books of study, which are usually tasks, and at best require considerable mental effort, are the first to be thrown aside, and the last to be resumed in convalescence.

“If any reading at all is to be resorted to, it is generally such as will amuse,—light literature, everywhere to be found,—and not books the use of which means labor.”—[H. H. Clark, member of Iowa State Board of Health.]

The objection suggested in the question, “Why not furnish clothes as well as books?” has little significance when we consider that the State by its compulsory laws creates the legal necessity of purchasing books, while the necessity for clothes would exist if there were no schools to attend. Clothes should be furnished at public expense whenever this is necessary to attendance.

The advantages of the free text-book system are so many and so important, that a considerable expenditure of time and labor may well be made. Experience and a proper division of labor will lessen both, until a thorough application of the system will not be considered a burden.

The testimony of the Boston School Board, as presented in the recent report of its Committee on Supplies, will close this division of my subject. This Board, it may be stated, was active and pronounced in its opposition to the law of 1884 when it was under consideration by the State Legislature, and even after its enactment was quite reluctant to carry it into operation. Under these circumstances, the judgment of the Board in regard to the practical working of the system has been looked for with the deepest interest. The Committee on Supplies, to which is entrusted the purchase and distribution

of books and other appliances used in the public schools, reports as follows : —

Between one-seventh and one-sixth of the population of the city attended the public schools during the past year, and, in accordance with the free text-book act, they received text-books as a loan and other school material as a gift. The past year was the third year during which pupils were supplied under this law.

The practical working in Boston of the new law is progressing very favorably, and many principals report that the books are better cared for than if the pupils owned them. This is owing, in a great measure, to the oversight of the instructors, who are required to examine the books each month. The number of books lost is comparatively small, and in many cases they are replaced by the pupils who lost them.

The carrying out of the free text-book law, during the past year, was accomplished with very little friction. The instructors have familiarized themselves with the details of the work, and the necessary accounts have been more accurately kept than in previous years.

It was thought that under the free text-book system many parents would object to allowing their children to accept the loan of text-books ; but experience has shown that parents, with very few exceptions, approve the use of city property by their children.

While it is true that many pupils having the required text-books at home bring them for use in school, it is equally true that very few pupils, probably less than one per cent., purchase books in preference to being supplied by the city.

The number of books returned from the schools, as worn out during the year, was as follows : —

High schools,	29
Grammar schools,	2,043
Primary schools,	4,326
Total number of books sent back as worn out,	6,398

The number of books returned as worn out the previous year was 3,582, making a total for two years of 9,980.

When it is considered that the schools have used about 50,000 second-hand books and 115,000 new books two years, and 60,000 new books one year, and that of this total of 225,000 books used, only about four per cent. was returned for two years as worn out, no further argument would seem to be needed to show that the books are being well cared for.

The number of books reported lost during the year was as follows : High schools, 26 ; grammar schools, 225 ; primary schools, 211 ; evening schools, 202 ; total, 664.

The books reported lost equalled about one-quarter of one per cent. of the books loaned. Many of the books were lost on account of pupils who moved out of the city and could not be found.

The number reported as being lost the previous year was 731, making a total loss of 1,395 books for the two years.

If the experience of the past two years is a fair criterion of the future, regarding the care taken of the text-books, the cost for supplying pupils under the present plan will be less than was anticipated or could have been expected from the results obtained years ago by the city in loaning books to a portion of the pupils.

The net cost of furnishing books and supplies to the 62,259 pupils attending the several schools the past year amounted to \$43,884.73, — an average cost for each pupil of about 70 cents.

The cost per scholar each year since the free text-book act went into operation was as follows : 1884-85, \$73,682.46, average cost, \$1.23 ; 1885-86, \$59,867.12, average cost, 98 cents ; 1886-87, \$43,884.73, average cost, 70 cents.

From the statement above it can be noticed that the cost to the city for loaning books and furnishing stationery and drawing materials each year for the past three years averaged 97 cents per pupil. It is fair to presume that the plan can be continued at about this expense annually.

The average cost to the city for the three years preceding 1884-85 was 33 cents per pupil ; so that the financial result of the free text-book act in Boston has been to add 64 cents to the yearly cost of educating each pupil, and to relieve the parents of a somewhat larger expenditure than they would otherwise have incurred had they been obliged to purchase books for their children.

The Committee on Accounts, also, referring briefly to the practical working of the system, especially in regard to its effect upon school attendance, says : —

From the report of the Committee on Supplies recently issued, it appears that the working of the free text-book law is progressing very satisfactorily, and only adds thus far about 64 cents to the yearly cost for educating each pupil.

In 1884, when the law went into effect, we find that the number of pupils attending the high schools was 2,395. In 1887 the number is 2,944, — an increase of 549, or about 23 per cent., in three years.

The increase in the number of pupils in the three upper classes of the grammar schools during the past three years was about 40 per cent. greater than the increase in the three lower classes, although the proportion of pupils in the former, as compared with the latter, is less than 60 per cent.

The free text-book act has undoubtedly been a large factor in filling up our high schools and the upper classes of the grammar schools, on account of the expense saved to parents by relieving them from the purchase of text-books, which, in these grades requires quite a large sum.

Two of the advantages thus far developed by the use of free text-books, are, first, avoiding delay in getting the schools into working order, and second, in prolonging the school life of children.

Surely a system that in three short years can overcome opposition so completely,—an opposition, too, that was directed, not by blind prejudice, but by the strong convictions of men of unquestioned integrity, of rare intelligence, and of large experience in school affairs,—must have elements of strength which its most earnest advocates have not ventured to claim for it.

From a careful comparison of statistics collected from all parts of the country where the plan is in use, it is fair to conclude that the system of free text-books effects a net saving of from one dollar to one dollar and a half on each pupil enrolled. In other words, the people of Boston, whose school enrolment is in round numbers sixty-five thousand, are realizing an annual saving of not less than seventy-five thousand dollars. To the State of Massachusetts, with a school enrolment of three hundred sixty thousand, the saving is nearly or quite five hundred thousand dollars a year. If the system were in operation in all the States, the annual saving would amount to the enormous sum of ten million dollars.

The high purpose of the public school is to train the children to become virtuous, intelligent and useful men and women—to fit them to discharge properly their duties as citizens. Herein is the justification of the State for assuming to direct the education of its youth. It is for the preservation and perpetuation of itself that a free State undertakes to give to all its youth a good elementary education. For the accomplishment

of this purpose the State claims and exercises the right to levy taxes upon the person or property of all its subjects, and in return for this right of general taxation, pledges itself to secure the benefits of universal education. It claims the right "to tax all for the education of all," and in return promises to see that all are educated. In the fulfilment of this promise it becomes the duty of the State to deal with the question of school attendance, and, if need be, to enforce it by compulsory legislation.

Mr. Walter Smith, in a paper read before this institute at Lewiston, Me., in 1872, refers to this feature of our American system of public schools. It will be remembered that Mr. Smith had recently come among us as State Director of Art Education in the State of Massachusetts. These are his words : —

Neither ancient, mediæval, nor modern times can show a greater spectacle than this, — that the deliberate wisdom of the free American people has decided, and carries out by its own free choice, the principle that society should guard and protect the young from the neglect or poverty of parents, and insure that every possible citizen of the future shall be qualified by education to discharge his or her duty to the State.

I can find no words in the English language which adequately express my admiration of this feature in American society ; and when the prejudices, engendered by my own education in an ancient country, sometimes rise up within me, I look out mentally to the school-houses, and then remember the neglected children of England, and some other European countries, and all my dissatisfaction vanishes. In place of it comes the sensation that a people capable of performing so far-seeing and profound an act of justice to the weak and defenceless, may be trusted in every social relationship ; and from the flag-staff of national sentiment, I haul down the union jack, and as a teacher, I run up the stars and stripes of my adopted nationality.

One other duty remains to every republican Commonwealth ; it is the duty of providing that its public schools are in the fullest sense of the term free schools. "The discharge of this duty involves," says State Superintendent Searing of Wisconsin, "the removal of as many as possible of the barriers that

separate property from culture. The abolition of the rate-bill was the removal of one. Evening schools are, in many cities and villages, a partial removal of another. Free text-books in all free public schools would be the entire removal of still another. With this last barrier of expense immediately and necessarily attendant upon education removed, our system would, indeed, be free."

Neither the right nor the duty of the State to fulfil these obligations can be longer questioned.

"It is folly," says Secretary Dickinson, "for people to organize themselves into a free democratic State and attempt to promote or to perpetuate its institutions without providing for universal education which shall be at the same time compulsory and free. The government of a free State, that it may exist and be able to exercise its own proper functions, must provide those institutions that are adapted to educate the people into harmony with itself. With us the people and the State are one. It has never yet been shown that any sound principle of civil polity is violated by a people, who, having organized themselves into a free State, proceed to tax themselves for the support of those institutions which have for their object the stability of the State and the highest civilization of its citizens. As the foundations of a free State cannot be too firmly laid, nor the civilization of its people ever be raised too high, there can be no other limit to the right of the people to tax themselves for the support of their public schools than that found in their ability to pay. Massachusetts has acted in accordance with this idea throughout all the years of her history, until she now offers to all her children as much free public school instruction as they have the time or capacity or willingness to receive."

In conclusion, I would urge the need of prompt and decisive action in regard to this most important subject. Believing, as I trust we do, that it is the duty of the State to establish and maintain public schools by public taxation; that these schools should be free to all, and should be attended by all whose education is not otherwise provided for; believing that the cost of school-books is the great barrier that separates the rich from the poor, and thus prevents the schools from being free to all;

believing that it is within the power of the State, and plainly in the line of its duty, to remove this barrier ; believing, too, with the fathers of the republic, that free public schools are the life and strength and safety of republican institutions, it is the duty of teachers and of the friends of education, everywhere, to agitate this subject until the system of free text-books shall be incorporated into the laws of every Commonwealth “ from the Lakes to the Gulf and from sea to sea,” and every public school on all this broad continent shall be as free as the light and air of heaven.

THOMAS EMERSON.

NEWTONVILLE, July 5, 1887.

E.

ILLITERACY IN MASSACHUSETTS.

BY

HORACE G. WADLIN.

ILLITERACY IN MASSACHUSETTS.*

The Decennial Census of the Commonwealth, taken during the year 1885, the results of which are now in process of compilation for publication by the Massachusetts Bureau of Statistics of Labor, affords definite information as to the condition of our State with respect to illiteracy, and by comparison with the statistics of the Census of 1875 enables us to determine whether illiteracy is increasing or diminishing within our borders and whether the operation of the statutes relating to education is such as to commend them to continued support or to subject them to criticism and revision.

At the outset it should be understood that census illiteracy is illiteracy reduced to its lowest terms. That is, every person ten years of age and over, who is unable either to write or to read, or who is able neither to write nor read, is, for census purposes, deemed illiterate; and no person, no matter how narrow his education, who is able to write and read in any language is classed as illiterate.

Illiteracy, within the limits above defined, is, it will be seen, of three degrees. The first class comprises those unable to read but who profess to be able to write. This class is the least numerous, and at first sight implies a peculiar condition, but every census of the population discloses a few who fall within it. The next class includes those able to read who cannot write, and the third class comprises absolute illiterates who can neither read nor write.

With this explanation of the basis upon which the census of illiterates is taken we are ready to inspect the returns.

The following table presents the number of illiterates and the degree of illiteracy, by age periods, for the State; and exhibits also the nativity of these illiterates so far as to determine whether they were born in Massachusetts, other States or territories, or were foreign born:—

* The author is under obligations to the Massachusetts Bureau of Statistics of Labor for Tables I. to IV., reproduced entire from Part 2 of Volume I. of the Decennial Census now in press.

TABLE I. — *Number of Illiterates. 1885.*

THE STATE, DEGREE OF ILLITERACY, AND AGE PERIODS.	BORN IN MASSACHUSETTS.			OTHER NATIVE BORN.			FOREIGN BORN.			AGGREGATES.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
THE STATE,	4,403	3,894	8,297	2,332	3,269	5,601	38,815	69,550	108,365	45,550	76,713	122,263
Cannot read,												
10 to 13 years,	19	8	27	4	5	9	71	26	97	94	39	133
14 to 19 years,	1	—	1	—	1	1	—	—	—	1	1	2
20 to 29 years,	4	2	6	—	—	—	3	1	4	7	3	10
30 to 39 years,	4	2	6	—	—	—	23	7	30	27	9	36
40 to 49 years,	7	1	8	4	2	6	32	10	42	43	13	56
50 years and over,	3	3	6	—	2	2	13	8	21	16	13	29
Cannot write,												
10 to 13 years,	1,516	1,540	3,056	601	997	1,598	5,875	14,831	20,706	7,992	17,368	25,360
14 to 19 years,	673	448	1,121	142	88	230	332	310	642	1,147	846	1,993
20 to 29 years,	224	188	412	85	83	168	543	672	1,215	852	943	1,795
30 to 39 years,	223	309	532	101	209	310	1,009	2,025	3,034	1,333	2,543	3,876
40 to 49 years,	194	334	528	154	393	547	2,258	6,464	8,722	2,606	7,191	9,797
50 years and over,	201	261	462	119	223	342	1,729	5,360	7,089	2,049	5,844	7,893
Age unknown,	1	—	1	—	1	1	4	—	4	5	1	6
Neither read nor write,												
10 to 13 years,	2,868	2,346	5,214	1,727	2,297	3,994	32,869	54,693	87,562	37,464	59,306	96,770
14 to 19 years,	438	353	791	109	87	196	463	412	875	1,010	852	1,862
20 to 29 years,	542	377	919	250	265	515	2,652	2,379	5,031	3,444	3,021	6,465
30 to 39 years,	653	583	1,236	356	507	863	6,378	7,456	13,834	7,387	8,546	15,933
40 to 49 years,	651	585	1,236	630	879	1,509	12,614	21,750	34,364	13,895	23,214	37,109
50 years and over,	583	448	1,031	378	528	906	10,748	22,688	33,436	11,709	23,664	35,373
Age unknown,	1	—	1	4	1	5	14	8	22	19	9	28
Total Illiterates,												
10 to 13 years,	4,403	3,894	8,297	2,332	3,269	5,601	38,815	69,550	108,365	45,550	76,713	122,263
14 to 19 years,	1,112	801	1,913	251	176	427	795	722	1,517	2,158	1,699	3,857
20 to 29 years,	770	567	1,337	335	348	683	3,198	3,052	6,250	4,303	3,967	8,270
30 to 39 years,	890	894	1,774	457	716	1,173	7,410	9,488	16,898	8,747	11,098	19,845
40 to 49 years,	852	920	1,772	788	1,274	2,062	14,904	28,224	43,128	16,544	30,418	46,962
50 years and over,	787	712	1,499	497	753	1,250	12,490	28,056	40,546	13,774	29,521	43,295
Age unknown,	2	—	2	4	2	6	18	8	26	24	10	34

An analysis of this table may be most effectively made with the assistance of Table II., in which the statistics contained in Table I. are reduced to the percentage basis.

TABLE II. — *Percentage of Illiterates. 1885.*

THE STATE, DEGREE OF ILLITERACY, AND AGE PERIODS.	BORN IN MASSACHUSETTS.			OTHER NATIVE BORN.			FOREIGN BORN.			AGGREGATES.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
THE STATE,	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Cannot read,	0.43	0.21	0.33	0.17	0.15	0.16	0.18	0.04	0.09	0.21	0.05	0.11
10 to 13 years,	0.02	—	0.02	—	0.03	0.02	—	—	—	—	—	—
14 to 19 years,	0.09	0.05	0.07	—	—	—	0.01	—	—	0.02	—	0.01
20 to 29 years,	0.09	0.05	0.07	—	—	—	0.06	0.01	0.03	0.06	0.01	0.03
30 to 49 years,	0.16	0.03	0.10	0.17	0.06	0.11	0.08	0.02	0.04	0.09	0.02	0.05
50 years and over,	0.07	0.08	0.07	—	0.06	0.03	0.03	0.01	0.02	0.04	0.02	0.02
Cannot write,	34.43	39.55	36.83	25.77	30.50	28.53	15.14	21.32	19.10	17.54	22.64	20.74
10 to 13 years,	15.29	11.50	13.51	6.09	2.69	4.10	0.86	0.44	0.59	2.52	1.10	1.63
14 to 19 years,	5.09	4.83	4.97	3.65	2.54	3.00	1.40	0.97	1.12	1.87	1.23	1.47
20 to 29 years,	5.06	7.94	6.41	4.33	6.39	5.53	2.60	2.91	2.80	2.92	3.32	3.17
30 to 49 years,	4.40	8.58	6.36	6.60	12.02	9.77	5.82	9.29	8.05	5.72	9.37	8.01
50 years and over,	4.57	6.70	5.57	5.10	6.83	6.11	4.45	7.71	6.54	4.50	7.62	6.46
Age unknown,	0.02	—	0.01	—	0.03	0.02	0.01	—	—	0.01	—	—
Neither read nor write,	65.14	60.24	62.84	74.06	69.35	71.31	84.68	78.64	80.81	82.25	77.31	79.15
10 to 13 years,	9.95	9.07	9.53	4.67	2.66	3.50	1.19	0.60	0.81	2.22	1.11	1.53
14 to 19 years,	12.31	9.68	11.07	10.72	8.11	9.19	6.83	3.42	4.65	7.56	3.94	5.29
20 to 29 years,	14.83	14.97	14.90	15.27	15.51	15.41	16.43	10.72	12.76	16.22	11.14	13.03
30 to 49 years,	14.79	15.02	14.90	27.02	26.89	26.94	32.50	31.27	31.71	30.51	30.26	30.35
50 years and over,	13.24	11.50	12.43	16.21	16.15	16.18	27.69	32.62	30.86	25.70	30.85	28.93
Age unknown,	0.02	—	0.01	0.17	0.03	0.09	0.04	0.01	0.02	0.04	0.01	0.02
Total Illiterates,	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
10 to 13 years,	25.26	20.57	23.06	10.76	5.38	7.62	2.05	1.04	1.40	4.74	2.21	3.16
14 to 19 years,	17.49	14.56	16.11	14.37	10.65	12.19	8.24	4.39	5.77	9.45	5.17	6.77
20 to 29 years,	19.98	22.96	21.38	19.60	21.90	20.94	19.03	13.64	15.59	19.20	14.47	16.23
30 to 49 years,	19.35	23.63	21.36	33.79	38.97	36.82	38.40	40.58	39.80	36.32	39.65	38.41
50 years and over,	17.88	18.28	18.07	21.31	23.04	22.32	32.17	40.34	37.42	30.24	38.49	35.41
Age unknown,	0.04	—	0.02	0.17	0.06	0.11	0.05	0.01	0.02	0.05	0.01	0.02

An inspection of these tables shows that out of 122,263, the aggregate number of illiterates of all degrees, only 133, or one-tenth of one per cent., are reported as able to write but not read; 25,360, or 20.74 per cent., can read but not write; while 96,770, or 79.16 per cent., are absolute illiterates, able neither to read nor write.

Of the aggregate number of illiterates, 108,365 are foreign born; 5,601 are native born on territory exterior to Massachusetts; while 8,297 are natives of Massachusetts. Of illiterates born in Massachusetts, 5,214, being 62.85 per cent., or slightly more than three-fifths of the illiterates native to the State, can neither read nor write, and this comparatively small increment represents absolute illiteracy for which the Commonwealth is unquestionably responsible, inasmuch as it is its own product, and should have come under the influence of its schools.

The question at once arises, what relative proportion does this native illiteracy bear to the whole number of illiterates, and to the total native population ten years of age and over? This question and others of equal interest are answered by the two tables which follow, Tables III. and IV. :—

TABLE III. — Percentages of Native and Foreign Born Illiterates of Total Illiterates. 1885.

THE STATE, DEGREE OF ILLITERACY, AND AGE PERIODS.	MALES.			FEMALES.			BOTH SEXES.		
	Born in Massachu- setts.	Other Native Born.	Foreign Born.	Born in Massachu- setts.	Other Native Born.	Foreign Born.	Born in Massachu- setts.	Other Native Born.	Foreign Born.
THE STATE,	9.67	5.12	85.21	5.08	4.26	90.66	6.79	4.58	88.63
Cannot read,	20.21	4.26	75.53	20.51	12.82	66.67	20.30	6.77	72.93
10 to 13 years,	100.00	—	—	—	100.00	—	50.00	—	—
14 to 19 years,	57.14	—	42.86	66.67	—	33.33	60.00	—	40.00
20 to 29 years,	14.81	—	85.19	22.22	—	77.78	16.67	—	83.33
30 to 49 years,	16.28	9.30	74.42	7.69	15.39	76.92	14.29	10.71	75.00
50 years and over,	18.75	—	81.25	23.08	15.38	61.54	20.69	6.90	72.41
Cannot write,	18.97	7.52	73.51	8.87	5.74	85.39	12.05	6.30	81.65
10 to 13 years,	58.67	12.38	28.95	52.96	10.40	36.64	56.25	11.54	32.21
14 to 19 years,	26.29	9.98	63.73	19.94	8.80	71.26	22.95	9.36	67.69
20 to 29 years,	16.73	7.58	75.69	12.15	8.22	79.63	13.72	8.00	78.28
30 to 49 years,	7.44	5.91	86.65	4.64	5.47	89.89	5.39	5.58	89.03
50 years and over,	9.81	5.81	84.38	4.47	3.81	91.72	5.85	4.33	89.82
Age unknown,	20.00	—	80.00	—	100.00	—	16.66	16.67	66.67
Neither read nor write,	7.65	4.61	87.73	3.96	3.82	92.22	5.39	4.13	90.48
10 to 13 years,	43.37	10.79	43.84	41.43	10.21	48.36	42.48	10.53	46.99
14 to 19 years,	15.74	7.26	77.00	12.48	8.77	78.75	14.21	7.97	77.82
20 to 29 years,	8.84	4.82	86.34	6.82	5.93	87.25	7.76	5.42	86.82
30 to 49 years,	4.69	4.53	90.78	2.52	3.79	93.69	3.33	4.07	92.60
50 years and over,	4.98	3.23	91.79	1.89	2.23	95.88	2.92	2.56	94.52
Age unknown,	3.26	21.05	73.69	—	11.11	88.89	3.57	17.86	78.57
Total Illiterates,	9.67	5.12	85.21	5.08	4.26	90.66	6.79	4.58	88.63
10 to 13 years,	51.53	11.63	36.84	47.14	10.36	42.50	49.60	11.07	39.33
14 to 19 years,	17.89	7.79	74.32	14.30	8.77	76.93	16.17	8.26	75.57
20 to 29 years,	10.06	5.22	84.72	8.06	6.45	85.49	8.94	5.91	85.15
30 to 49 years,	5.15	4.76	90.09	3.02	4.19	92.79	3.77	4.39	91.84
50 years and over,	5.71	3.61	90.68	2.41	2.55	95.04	3.46	2.89	93.65
Age unknown,	8.33	16.67	75.00	—	20.00	80.00	5.88	17.65	76.47

TABLE IV. — Percentages of Illiterates of Population: By Age Periods. 1885.

NATIVITY AND AGE PERIODS.	POPULATION.			NUMBER OF ILLITERATES.			PERCENTAGE OF ILLITERATES.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
<i>Born in Massachusetts,</i>									
10 to 13 years,	389,661	412,128	801,789	4,403	3,894	8,297	1.13	0.94	1.03
14 to 19 years,	56,579	56,374	112,953	1,112	801	1,913	1.97	1.42	1.69
20 to 29 years,	74,846	74,445	149,291	770	567	1,337	1.03	0.76	0.90
30 to 39 years,	92,726	100,156	192,882	880	894	1,774	0.95	0.89	0.92
40 to 49 years,	98,300	105,270	203,570	852	920	1,772	0.87	0.87	0.87
50 years and over,	67,194	75,871	143,065	787	712	1,499	1.17	0.94	1.05
Age unknown,	16	12	28	2	—	2	12.50	—	7.14
<i>Other Native Born,</i>									
10 to 13 years,	128,850	147,229	276,079	2,332	3,269	5,601	1.81	2.22	2.03
14 to 19 years,	6,971	7,115	14,086	251	176	427	3.60	2.47	3.03
20 to 29 years,	13,616	14,787	28,403	335	348	683	2.46	2.35	2.40
30 to 39 years,	29,664	34,199	63,863	457	716	1,173	1.54	2.09	1.84
40 to 49 years,	48,127	53,860	101,987	788	1,274	2,062	1.64	2.37	2.02
50 years and over,	30,439	37,242	67,681	497	753	1,250	1.63	2.02	1.85
Age unknown,	33	26	59	4	2	6	12.12	7.69	10.17
<i>Foreign Born,</i>									
10 to 13 years,	233,236	270,857	504,093	38,815	69,550	108,365	16.64	25.68	21.50
14 to 19 years,	6,960	7,065	14,025	795	722	1,517	11.42	10.22	10.82
20 to 29 years,	20,049	24,991	45,040	3,198	3,032	6,230	15.95	12.21	13.88
30 to 39 years,	55,483	72,522	128,005	7,410	9,488	16,898	13.36	13.08	13.20
40 to 49 years,	98,723	105,859	204,582	14,904	28,224	43,128	15.10	26.66	21.08
50 years and over,	51,986	60,398	112,384	12,490	28,056	40,546	24.03	46.45	36.08
Age unknown,	35	22	57	18	8	26	51.43	36.36	45.61
<i>Aggregates,</i>									
10 to 13 years,	751,747	830,214	1,581,961	45,550	76,713	122,263	6.06	9.24	7.73
14 to 19 years,	70,510	70,554	141,064	2,158	1,699	3,857	3.06	2.41	2.73
20 to 29 years,	108,511	114,223	222,734	4,303	3,967	8,270	3.97	3.47	3.71
30 to 39 years,	177,873	206,877	384,750	8,747	11,098	19,845	4.92	5.36	5.16
40 to 49 years,	245,150	264,989	510,139	16,544	30,418	46,962	6.75	11.48	9.21
50 years and over,	149,619	173,511	323,130	13,774	29,521	43,295	9.21	17.01	13.40
Age unknown,	84	60	144	24	70	94	28.57	16.67	23.61

From Table III. it appears that the illiterates of all degrees born in Massachusetts constitute 6.97 per cent. of the aggregate illiterates; that other native born are 4.58 per cent., while 88.63 per cent., or nearly nine-tenths of the whole number of illiterates, are foreign born.

Of the small number of illiterates who simply cannot read, 20.30 per cent. are natives of this State, 6.77 per cent. were born in other States or territories, and 72.93 per cent. are foreign born. Of those who cannot write, 12.05 per cent. were born in Massachusetts, 6.30 per cent. were born in other States or territories, and 81.65 per cent. are foreign born. Of the absolute illiterates, 5.39 per cent. were born in Massachusetts, 4.13 per cent. are natives of other States or territories, and 90.48 per cent. are foreign born.

Returning to the class which is native to our State, it is shown in Table IV. that the illiterates of all degrees and all ages in this class form but 1.03 per cent. of the population ten years of age and over, nearly equally divided between the sexes, the males being slightly in excess. Illiterates native born outside of Massachusetts are 2.03 per cent. of the population of this class. The foreign born illiterates, however, are 21.50 per cent. of the foreign born population, this wide difference bringing the average percentage of illiterates of population down to 7.73 per cent.

Illiterates who are reported as able to write but who cannot read form so small a part of the aggregate number as practically to be of no importance in considering the evil of illiteracy. Those who can read may be said to have passed beyond the confines of illiteracy and already to be on the way to further improvement. Absolute illiteracy, in a Commonwealth of free and compulsory education, is the blot on the escutcheon, but the most superficial analysis of these tables establishes the fact that the larger part of our illiteracy is foreign born, brought here by the growth of our industries and the general development of the Commonwealth. It is the product of countries whose systems of public instruction bear no comparison with our own, and whose children, unfortunately, have not been able to acquire even that rudimentary education which would place them above the line of census illiteracy. The absolute illiterates, natives of this State, and for whose condition the Commonwealth is, as we have said, justly responsible,

number (Table I.) 5,214 in a total of 122,263, or, more graphically, about six-tenths of one per cent. of the Massachusetts born population ten years of age and over. This small increment of native illiteracy of itself testifies to the value of the public schools, and confirms the statement frequently made that the children of Massachusetts are in her schools and not suffered to grow up in ignorance. This fact should never be overlooked by those who point to the aggregate number of illiterates within the State as evidence of the failure of our school system, or to justify the assertion that our school law is not enforced.

But while the present status of our native born population may, of itself, be satisfactory, it is important to know whether illiteracy is increasing; whether, also, such conditions prevail in Massachusetts, growing out of her position as an industrial centre, drawing hither the emigrant who comes to better his position, that foreign born illiteracy is increasing; and finally, whether the present illiterates, both native and foreign born, may be subjected to compulsory educational statutes.

To determine whether illiteracy is increasing or diminishing the following comparative statistics are conclusive:—

TABLE V. — *Illiteracy: 1875 and 1885 Compared.*

YEARS.	POPULATION, 10 YEARS OF AGE AND OVER.		
	Native Born.	Foreign Born.	Total.
1875,	914,183	399,436	1,313,619
1885,	1,077,863	504,093	1,581,961
Increase,	163,685	104,657	268,342
Per cent. of increase,	17.9	26.2	20.4

TABLE V. — *Concluded.*

YEARS.	NUMBER OF ILLITERATES.		
	Native Born.	Foreign Born.	Total.
1875,	12,150	92,363	104,513
1885,	13,898	108,365	122,263
Increase,	1,748	16,002	17,750
Per cent. of increase,	14.4	17.3	16.9

In the foregoing table native born illiterates include those born in other States and territories as well as in Massachusetts, the union of the two classes in the Census of 1875 rendering a similar classification necessary now. If it were possible to separate in the comparison those born in Massachusetts from other native born, the results would undoubtedly be still more favorable to this Commonwealth.

The first point of interest derived from this table is, that while the increase of illiteracy as a whole reaches 16.9 per cent., native born illiterates have increased 14.4 per cent. and foreign born, 17.3 per cent. In other words, the ratio of increase in native born illiterates is less than the increase in aggregate illiteracy, while as to foreign born illiterates a contrary statement is true.

Again, while native born illiterates have increased 14.4 per cent., native born population has increased 17.9 per cent.; foreign born illiterates have increased 17.3 per cent.; foreign born population 26.2 per cent.; total illiteracy has increased 16.9 per cent., and total population 20.4 per cent. That is, *the ratio of increase in illiterates of each class, and of aggregate illiteracy, has been considerably less than the ratio of increase in population of each class, and of total population.* Conclusively then, neither native, foreign born, nor aggregate illiteracy is increasing in Massachusetts so fast as her population is increasing. This shows what may be termed the retardative influence of the schools upon the evil.

It follows, as a matter of course, that the relative proportion which the aggregate illiteracy of each class bears to the population of each class is now less than in 1875. The decrease is shown by percentages in the following table: —

TABLE VI. — *Percentages of Illiterates of Population. 1875 and 1885.*

YEARS.	POPULATION, 10 YEARS OF AGE AND OVER.		
	Native Born.	Foreign Born.	Total.
1875,	914,183	399,436	1,313,619
1885,	1,077,868	504,093	1,581,961

TABLE VI. — Concluded.

YEARS.	PERCENTAGE OF ILLITERATES OF POPULATION OF EACH CLASS.		
	Native Born.	Foreign Born.	Total.
1875,	1.33	23.12	7.96
1885,	1.29	21.50	7.73

The margin of decrease in each class is small, but the tendency is in the right direction. This presentation effectually allays any fear that, notwithstanding the efforts of Massachusetts in behalf of public instruction, illiteracy is increasing here. The reverse is the fact.

We have not yet touched the vital point, however, for be it remembered, this includes illiterates of all ages, many of whom have come into the State after reaching maturity, and are therefore beyond the reach of elementary instruction. Illiterate minors may properly be subjected to compulsory education. The tendency of our legislation in recent years has been to strengthen and extend the statutes regulating the instruction of minors. It is therefore profitable to determine what proportion of our illiterates are of this class. So far as relates to our present condition this query is answered in the following summary derived from Tables I. to IV. :—

TABLE VII.—*Illiterate Minors Compared with Total Illiterates. 1885.*

DESCRIPTION.	AGES, 10 TO 13.			AGES, 10 TO 19.		
	Native Born.	Foreign Born.	Total.	Native Born.	Foreign Born.	Total.
Illiterates of all degrees, . .	2,340	1,517	3,857	4,360	7,767	12,127

TABLE VII. — Concluded.

DESCRIPTION.	PERCENTAGES OF MINORS, 10 TO 13, OF TOTAL ILLITERATES.			PERCENTAGES OF MINORS, 10 TO 19, OF TOTAL ILLITERATES.		
	Native Born.	Foreign Born.	Total.	Native Born.	Foreign Born.	Total.
Illiterates of all degrees, . .	1.92	1.24	3.16	3.57	6.35	9.92

From this it appears, that, of the total number of illiterates in the State, only about 9.92 per cent. are minors under 20, 3.57 per cent. being native and 6.35 per cent. foreign born. Minors of ordinary school age (under 14) are 3.15 per cent. only of total illiterates, 1.91 per cent. being native and 1.24 per cent. foreign born. In order to compare these percentages with similar data for 1875, an almost parallel table is presented, the only difference being that in that year the first age period taken was from 10 to 15, instead of from 10 to 13.

TABLE VIII. — *Illiterate Minors Compared with Total Illiterates. 1875.*

DESCRIPTION.	AGES, 10 TO 15.			AGES, 10 TO 19.		
	Native Born.	Foreign Born.	Total.	Native Born.	Foreign Born.	Total.
Illiterates of all degrees, . .	3,054	2,987	6,041	4,736	6,859	11,595

TABLE VIII. — *Concluded.*

DESCRIPTION.	PERCENTAGES OF MINORS, 10 TO 15, OF TOTAL ILLITERATES.			PERCENTAGES OF MINORS, 10 TO 19, OF TOTAL ILLITERATES.		
	Native Born.	Foreign Born.	Total.	Native Born.	Foreign Born.	Total.
Illiterates of all degrees, . .	2.92	2.86	5.78	4.53	6.56	11.09

In 1875, as shown above, illiterate minors under 20 were 11.09 per cent. of the total illiterates, 4.53 per cent. being native and 6.56 per cent foreign born. Minors, 10 to 15, were 5.78 per cent., 2.92 per cent. being native and 2.86 per cent. foreign born. Comparing these results with those of 1885, we notice a decrease in each class, the percentage of illiterates under 20 having declined during the decade from 11.09 to 9.92 per cent. Our present condition as to minors absolutely illiterate is shown in the following table : —

TABLE IX. — *Absolute Illiterates and Illiterate Minors. 1885.*

POPULATION, 10 YEARS OF AGE AND OVER.	Classification.	NUMBER OF ILLITERATES.			
		Born in Massa- chusetts.	Other Native Born.	Foreign Born.	Total.
1,581,961	Absolute illiterates of all ages,	5,214	3,994	87,562	96,770
	Minors, 10 to 13, . . .	791	196	875	1,862
	Minors, 10 to 19, . . .	1,710	711	5,906	8,327

TABLE IX. — Concluded.

POPULATION, 10 YEARS OF AGE AND OVER.	Classification.	PERCENTAGE OF ILLITERATES OF POPULATION.			
		Born in Massa- chusetts.	Other Native Born.	Foreign Born.	Total.
1,581,961	Absolute illiterates of all ages,	0.33	0.25	5.54	6.12
	Minors, 10 to 13, . . .	0.05	0.01	0.06	0.12
	Minors, 10 to 19, . . .	0.11	0.05	0.37	0.53

The striking fact appears above that while absolute illiterates of all ages and all nativities are 6.12 per cent. of population ten years of age and over, foreign born illiterates being 5.54 per cent., those born in Massachusetts are only about *three-tenths of one per cent.*, and other native born *twenty-five hundredths of one per cent.* Absolutely illiterate minors under twenty of all nativities are about *five-tenths of one per cent. only* of population, those born in Massachusetts being *eleven-hundredths of one per cent.*, other native born *five-hundredths of one per cent.*, and foreign born *thirty-seven-hundredths of one per cent.* Of minors of ordinary school age (under fourteen) only *twelve-hundredths of one per cent.* are absolutely illiterate, *five-hundredths of one per cent.* being natives of Massachusetts, *one-hundredth of one per cent.* other native born, and *six-hundredths of one per cent.* foreign born.

The comparatively small and constantly decreasing proportion of illiterate minors cannot be more graphically shown than in these tables. Presented with sufficient comment to render them intelligible they require no argument to support them. They are the latest official data relating to illiteracy in Massachusetts. Unquestionably reliable in their origin they enforce their own moral. They show plainly that although Massachusetts contains 122,263 illiterates, a number sufficiently startling when contemplated without analysis, the bulk of this illiteracy is not of her making, nor the result of her neglect. If absolute illiterates only are considered the total at once drops to 96,770, and this, as well as the illiteracy of each degree, is to-day largely adult illiteracy, chiefly foreign born. It was adult and foreign born in 1875. At each period it was outside the pale of public instruction, and beyond the reach of compulsory

educational statutes. It has grown out of the peculiar social condition of the State. Its existence, however deplorable, seems to be inseparable from an industrial Commonwealth, open to immigration.

The ratio of illiterate minors, both native and foreign born, has steadily decreased under the operation of statutes existing prior to 1885, although the population has largely increased, showing wise enactment and effective enforcement of law. Massachusetts has said to her native children, education, freely offered, must be accepted by you; she says the same to the children of those who come to her from abroad. Knowing no distinctions of race or creed, with a system of instruction available to all, she has determined that preventable illiteracy shall not exist within her borders; and the results so far secured justify the means she has adopted ultimately to attain this end.

HORACE G. WADLIN.

AN ABSTRACT

OF THE SCHOOL RETURNS MADE BY THE SCHOOL COM-
MITTEES OF THE SEVERAL TOWNS AND CITIES
IN THE COMMONWEALTH FOR THE
SCHOOL-YEAR 1886-1887.

BARNSTABLE COUNTY.

TOWNS.	Population—State Census, 1885.	Valuation—1886.	No. of Public Schools.	No. of persons in town May 1, 1886, between 5 and 15 years of age.	No. of persons in town May 1, 1886, between 16 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school-year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Barnstable,	4,050	\$2,774,580	25	657	455	782	3	122	455	634	584	.92	25
Bourne,	1,363	1,006,050	11	252	146	280	—	28	146	204	188	.92	11
Brewster,	934	451,300	7	169	109	206	—	38	109	171	155	.91	7
Chatham,	2,028	618,415	11	352	224	396	—	53	219	308	264	.86	11
Dennis,	2,923	1,164,507	13	489	315	273	—	78	403	468	423	.90	13
Eastham,	638	219,531	3	95	77	120	—	24	77	85	68	.80	3
Falmouth,	2,520	3,622,335	16	406	321	451	—	50	285	362	316	.87	16
Harwich,	2,783	1,003,170	16	436	323	560	—	109	319	491	454	.92	16
Mashpee,	311	145,150	2	48	38	66	1	18	39	47	38	.81	2
Orleans,	1,176	450,776	6	156	100	184	—	18	101	137	116	.85	6
Provincetown,	4,480	1,992,190	16	812	520	950	—	115	540	810	738	.91	19
Sandwich,	2,124	942,750	12	386	249	407	—	40	249	359	337	.91	13
Truro,	972	273,281	6	165	90	188	1	56	90	158	145	.92	6
Wellfleet,	1,687	744,518	9	248	170	287	—	52	178	261	230	.88	8
Yarmouth,	1,856	1,395,309	10	319	194	335	—	44	212	259	232	.90	10
Totals,	29,845	\$16,803,862	163	4,990	3,331	5,485	5	845	3,422	4,754	4,288	.90	166

BERKSHIRE COUNTY.

Adams,	8,283	\$3,260,836	32	1,800	1,132	1,879	3	82	1,116	1,427	1,352	.95	35
Alford,	341	234,847	3	60	40	76	1	10	40	49	38	.78	3

Becket,	938	382,451	8	167	103	185	5	30	103	158	133	.84	8
Cheshire,	1,448	699,217	9	297	183	359	-	62	197	263	231	.88	10
Clarksburg,	708	205,544	3	133	65	144	-	4	55	91	80	.88	3
Dalton,	2,113	1,671,190	12	449	276	481	9	42	266	356	316	.89	13
Egremont,	826	418,960	3	125	74	136	1	8	90	107	93	.87	4
Florida,	487	169,399	6	130	79	141	1	6	73	114	100	.88	6
Gt. Barrington,	4,471	3,144,358	22	840	515	883	6	95	431	779	647	.83	24
Hancock,	613	370,407	6	113	70	119	2	12	71	88	69	.78	6
Hinsdale,	1,656	720,746	12	419	239	389	1	27	241	359	295	.82	12
Lanesborough,	1,212	553,660	9	255	196	301	3	16	206	228	183	.80	9
Lee,	4,274	2,785,217	18	722	444	769	11	113	361	613	553	.90	20
Lenox,	2,154	1,581,745	13	450	270	492	4	72	287	378	337	.89	13
Monterey,	571	227,381	6	101	64	111	1	21	63	104	97	.93	6
Mt. Washington,	160	80,450	2	26	18	35	1	7	18	27	21	.78	5
New Ashford,	163	81,350	2	28	16	33	1	3	16	22	20	.91	3
New Marlboro',	1,661	621,442	13	311	243	328	4	18	241	270	222	.82	13
North Adams,	12,540	5,185,901	42	2,769	1,921	2,683	1	127	1,299	1,960	1,815	.93	55
Otis,	703	209,172	8	114	76	170	3	14	92	125	111	.88	8
Peru,	368	118,432	4	54	44	53	-	1	52	43	37	.86	4
Pittsfield,	14,466	8,920,815	52	2,854	2,767	3,193	132	310	2,751	2,395	2,162	.90	73
Richmond,	854	498,142	7	206	117	193	2	20	104	140	117	.84	7
Sandisfield,	1,019	397,925	12	224	130	233	11	23	126	170	147	.86	13
Savoy,	691	178,568	8	127	89	123	4	6	75	213	177	.83	12
Sheffield,	2,033	940,364	14	385	240	463	11	52	258	323	270	.83	14
Stockbridge,	2,114	2,598,867	10	390	270	360	4	12	260	302	269	.89	11
Tyringham,	457	230,177	6	95	96	96	3	-	59	75	67	.89	6
Washington,	470	199,345	6	90	54	102	1	11	54	72	62	.86	6
West Stockbridge,	1,648	685,181	11	372	261	444	7	27	269	348	293	.84	11
Williamstown,	3,729	1,746,166	13	543	342	716	1	62	445	481	409	.85	14
Windsor,	657	208,664	8	123	87	130	3	8	82	112	98	.87	8
Totals,	73,828	\$39,326,919	380	14,772	10,521	15,820	237	1,301	9,801	12,192	10,821	.89	435

BARNSTABLE COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	Av'ge wages per month of male teachers in Public Schools.	Av'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of schools kept less than six months each.	HIGH SCHOOLS.						Salary of Principal.
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Length.		
														Months.	Days.	
Barnstable,	10	26	12	12	\$74 34	\$37 33	207-5	8-3	1	1	1	38	Taxation,	9	\$900 00	
Bourne,	1	12	-	-	85 00	36 50	88	8	-	1	1	42	Taxation,	8	680 00	
Brewster,	2	11	10	10	50 00	33 87	53-15	7-15	-	-	-	-	-	-	-	
Chatham,	2	16	2	1	82 00	24 00	99	9	-	1	1	42	Taxation,	9	900 00	
Dennis, .	6	10	6	5	57 50	37 00	112	8-10	-	1	1	48	Taxation,	9	490 00	
Eastham,	2	4	1	-	39 38	32 06	26-5	8-15	-	-	-	-	-	-	-	
Falmouth,	3	20	6	3	68 72	39 00	136-14	8-10	-	1	2	66	Part tax,	9	1,000 00	
Harwich,	4	12	2	-	52 00	31 00	118-15	7-10	-	1	1	50	Taxation,	9	900 00	
Mashpee,	2	2	-	-	51 00	30 00	12-5	6	-	-	-	-	-	-	-	
Orleans,	1	8	3	2	88 88	29 00	51-10	8-12	-	1	1	36	Taxation,	9	800 00	
Provincetown,	3	19	4	4	93 00	30 00	152	9-10	-	1	3	119	Taxation,	9-10	1,000 00	
Sandwich,	3	16	3	2	87 50	34 25	97-15	8-1	-	1	2	49	Taxation,	9-15	1,200 00	
Truro, .	2	7	2	1	55 00	32 00	54	9	-	-	-	-	-	-	-	
Wellfleet,	1	10	2	-	100 00	33 00	68	8-10	-	1	2	56	Taxation,	10	1,000 00	
Yarmouth,	3	9	4	3	70 00	31 64	89	8-18	-	1	1	37	Part tax,	9	900 00	
Totals, .	45	182	57	43	\$68 50	\$33 32	1,366-4	8-6	1	11	16	583	-	100-5	\$9,770 00	

BERKSHIRE COUNTY — CONTINUED.

Adams,	6	33	6	6	\$97 06	\$38 25	289	9-1	-	1	3	70	Taxation,	9-15	\$1,500 00
Alford,	1	4	1	1	24 00	25 00	22	7-7	-	-	-	-	-	-	-
Becket,	-	14	3	-	-	22 37	54	6-15	-	-	-	-	-	-	-

SCHOOL RETURNS.

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Cheshire,	1	10	2	2	75 00	28 88	76-5	7-12	-	1	1	29	Taxation,	8	600 00
Clarksburg,	-	4	3	1	-	31 07	24-15	8-5	-	-	-	-	-	-	-
Dalton,	2	14	4	4	80 00	31 50	117	9-15	-	-	-	-	-	-	-
Egremont,	2	5	2	1	40 00	30 25	26-15	8-11	-	-	-	-	-	-	-
Florida,	-	7	-	-	-	24 80	35-9	5-18	-	-	-	-	-	-	-
Gt. Barrington,	5	28	3	-	65 00	30 00	211	9-12	1	2	136	Taxation,	9-15	1,550 00	
Hancock,	2	7	1	-	30 55	22 39	43	7-3	-	-	-	-	-	-	-
Hinsdale,	2	12	3	2	27 00	29 55	97-10	8-3	1	1	39	Taxation,	8-15	600 00	
Lanesborough,	-	11	-	-	-	25 49	69	7-13	-	-	-	-	-	-	-
Lee,	4	20	2	2	86 00	30 18	160-5	8	1	2	99	Taxation,	{ 10 8-11	1,500 00	
Lenox,	3	12	-	-	46 66	28 00	107-10	8-6	1	1	37	Taxation,	{ 8-11 9-10	342 00	
Monterey,	1	8	1	-	22 00	20 66	40	6-14	2	-	44	Taxation,	-	800 00	
Mt. Washington,	2	3	1	-	28 50	29 77	13-5	6-12	-	-	-	-	-	-	-
New Ashford,	1	2	-	-	24 00	20 00	15	7-10	-	-	-	-	-	-	-
New Marlboro',	3	16	1	1	23 50	22 38	98-10	8	1	-	-	-	-	-	-
North Adams,	5	50	5	2	117 18	36 69	375-3	8-9	-	2	4	108	Taxation,	{ 9-15 9-15	1,700 00
Otis,	-	10	-	-	-	19 00	52	6-10	-	-	-	-	-	-	-
Peru,	-	5	1	-	-	19 70	25-10	6-6	-	-	-	-	-	-	-
Pittsfield,	4	69	9	4	120 00	39 71	516	9-18	1	5	151	Taxation,	10	1,800 00	
Richmond,	2	8	-	-	24 00	24 00	52-10	7-5	-	-	-	-	-	-	-
Sandisfield,	4	21	1	-	23 75	20 76	89-5	7-8	-	-	-	-	-	-	-
Savoy,	-	11	3	1	-	17 00	48	6	-	-	-	-	-	-	-
Sheffield,	5	15	3	2	36 40	27 00	116-5	8-14	1	1	45	Taxation,	9	644 07	
Stockbridge,	2	13	1	1	180 00	32 78	97-15	9-15	-	1	2	53	Taxation,	10	1,200 00
Tyringham,	1	9	2	-	37 00	22 57	43-5	7	-	-	-	-	-	-	-
Washington,	-	8	2	-	-	20 87	42	7	-	-	-	-	-	-	-
West Stockbridge,	6	7	3	2	55 40	30 25	109-5	9-18	-	-	-	-	-	-	-
Williamstown,	1	18	2	1	75 00	28 33	114	8-13	-	1	2	34	Taxation,	10	750 00
Windsor,	-	9	1	1	-	23 00	48	6	-	-	-	-	-	-	-
Totals,	65	463	66	34	\$64 83	\$29 70	3,229-2	7-16	5	13	25	845	-	122-16	\$12,986 07

BARNSTABLE COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes for Schools, including wages of teachers, board, fuel, school-fires and school-rooms, for the school-year 1886-87.	Expense of supervision by school committee.	Salary of Superintendent of Public Schools.	Expense of Printing reports, etc.	Expense of sundries, — books, stationery, etc.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school-purposes from money raised by taxation.	Amount of voluntary contributions for Public Schools.
Barnstable,	\$11,000 00	\$295 97	\$400 00	\$56 25	\$1,515 77	—	—	\$944 23	\$14,212 22	—
Bourne,	4,520 00	200 00	—	14 00	561 20	—	—	272 73	5,567 93	—
Brewster,	2,200 00	100 00	—	15 00	160 11	—	—	100 00	2,575 11	—
Chatham,	3,300 00	228 62	—	20 00	300 00	—	\$130 00	139 00	4,117 62	—
Dennis,	5,500 00	150 00	75 00	25 00	787 54	—	—	511 93	7,049 47	—
Eastham,	800 00	—	65 00	10 00	70 89	—	31 68	52 46	1,030 03	—
Falmouth,	6,000 00	—	1,073 39	28 75	727 48	\$2,393 87	625 66	794 37	11,643 52	—
Harwich,	5,000 00	138 00	—	30 00	448 60	—	—	136 00	5,752 60	—
Mashpee,	200 00	30 00	—	10 00	10 47	—	—	6 23	256 70	—
Orleans,	2,200 00	5 00	100 00	16 00	197 62	—	—	158 91	2,677 53	—
Provincetown,	8,000 00	—	350 00	25 00	900 00	1,000 00	—	300 00	10,575 00	—
Sandwich,	5,800 00	—	200 00	35 00	427 79	—	—	396 81	6,859 60	—
Truro,	1,800 00	111 00	—	20 00	208 00	—	—	241 00	2,380 00	—
Wellfleet,	4,000 00	150 00	—	10 00	517 91	—	—	280 76	4,958 67	—
Yarmouth,	3,200 00	105 00	—	15 00	470 68	—	514 01	170 88	4,475 57	—
Totals,	\$63,520 00	\$1,513 59	\$2,263 39	\$330 00	\$7,304 06	\$3,393 87	\$1,301 35	\$4,505 31	\$84,131 57	—

BERKSHIRE COUNTY — CONTINUED.

Adams,	\$15,364 22	\$150 00	\$1,000 00	\$50 00	\$2,564 99	—	\$850 00	\$576 01	\$20,555 22	—
Alford,	372 20	16 00	—	10 00	25 00	—	—	9 00	432 20	—

SCHOOL RETURNS.

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Becket,	1,100 00	80 00	-	11 50	148 86	-	1,297 21	19 66	2,657 23	-
Cheshire,	2,500 00	83 00	-	5 00	400 00	-	150 00	150 00	3,288 00	-
Clarksburg,	700 00	-	-	2 00	218 69	-	-	12 40	933 09	-
Dalton,	4,500 00	80 00	50 00	-	650 00	-	475 00	150 00	5,905 00	-
Egremont,	950 00	38 00	-	5 00	175 00	-	446 19	85 39	1,699 58	-
Florida,	933 00	29 25	-	4 60	105 00	\$360 00	-	20 00	1,451 85	-
Gt. Barrington,	9,600 00	162 91	-	50 00	698 67	800 00	379 43	-	11,691 01	-
Hancock,	900 00	50 00	-	7 00	167 82	-	-	3 35	1,128 17	-
Hinsdale,	3,225 00	80 00	-	-	505 00	-	-	253 59	4,063 59	-
Lanesborough,	1,800 00	55 00	-	-	150 00	-	-	50 00	2,055 00	-
Lee,	8,205 12	333 75	-	12 00	657 68	1,000 91	134 66	496 66	10,840 78	-
Lenox,	4,600 00	181 87	-	10 00	500 00	2,800 00	-	600 00	8,691 87	-
Monterey,	800 00	52 50	-	5 00	-	-	128 48	40 71	1,026 69	-
Mt. Washington	100 00	34 00	-	-	56 17	-	-	4 00	194 17	-
New Ashford,	84 00	25 00	-	10 00	20 00	-	-	10 00	149 00	-
New Marlboro,	2,000 00	125 25	-	19 50	502 12	-	202 18	70 70	2,919 75	-
North Adams,	28,158 90	250 00	1,800 00	176 00	1,560 00	-	-	2,500 00	34,444 90	-
Otis,	900 00	80 70	-	3 75	83 57	-	-	13 95	1,081 97	-
Peru,	450 00	25 00	-	6 00	32 00	-	-	3 00	516 00	-
Pittsfield,	31,288 38	50 00	1,500 00	100 00	1,595 91	-	-	2,253 48	36,787 77	-
Richmond,	1,000 00	55 00	-	14 60	178 91	-	339 00	37 27	1,624 78	-
Sandisfield,	2,000 00	108 00	-	7 75	73 47	-	503 40	14 80	2,707 42	-
Savoy,	600 00	44 00	-	5 00	-	-	-	101 27	750 27	-
Sheffield,	3,500 00	243 50	-	12 00	428 36	-	342 92	25 00	4,551 78	-
Stockbridge,	4,625 00	228 50	-	10 00	375 00	-	450 00	423 29	6,111 79	-
Tyringham,	700 00	32 00	-	3 00	100 38	-	-	4 75	840 13	-
Washington,	700 00	52 50	-	6 00	60 00	-	-	15 00	833 50	-
W. Stockbridge,	4,350 00	105 00	-	10 00	222 64	-	33 55	277 34	4,998 53	-
Williamstown,	5,600 00	105 00	-	31 10	350 00	-	-	475 00	6,561 10	-
Windsor,	700 00	39 00	-	3 00	-	-	-	14 97	756 97	-
Totals.	\$142,305 82	\$2,994 73	\$4,350 00	\$589 80	\$12,605 24	\$4,960 91	\$5,732 02	\$8,710 59	\$182,249 11	\$50 00

SCHOOL RETURNS.

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[illegible]

BOARD OF EDUCATION.

BRISTOL COUNTY.

TOWNS.	Population—State Census, 1885.	Valuation—1886.	No. of Public Schools.	No. of persons in town May 1, 1886, between 5 and 15 years of age.	No. of persons in town May 1, 1886, between 8 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school-year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Acushnet, .	1,071	\$639,300	6	184	114	170	1	18	104	149	130	.87	6
Attleborough, .	13,175	6,456,599	53	2,191	1,383	2,616	—	193	1,544	2,128	1,895	.89	60
Berkley, .	941	413,218	7	144	103	163	5	19	94	127	111	.87	7
Dartmouth, .	3,448	1,929,600	20	506	306	502	4	30	306	423	362	.86	26
Dighton, .	1,782	735,538	11	274	200	318	3	19	198	259	233	.90	11
Easton, .	3,948	3,524,874	19	772	489	885	4	65	477	683	597	.87	21
Fairhaven, .	2,880	1,449,208	12	417	258	518	7	64	284	403	358	.89	13
Fall River, .	56,870	43,757,065	162	12,091	8,011	10,868	—	600	6,209	7,865	7,029	.89	210
Freetown, .	1,457	858,345	8	234	148	262	2	19	154	212	158	.75	8
Mansfield, .	2,939	1,191,279	13	485	281	535	8	33	364	477	392	.82	14
New Bedford, .	33,393	32,195,560	117	5,131	3,923	4,586	—	389	3,286	4,075	3,676	.90	124
Norton, .	1,718	764,400	8	322	208	285	—	11	208	213	184	.86	8
Raynham, .	1,535	852,654	10	241	125	254	3	13	120	194	177	.91	10
Rehoboth, .	1,788	736,765	14	276	159	306	13	31	159	225	192	.85	14
Seekonk, .	1,295	775,195	8	228	148	226	2	3	148	177	153	.86	8
Somerset, .	2,475	1,052,850	11	457	296	470	3	15	291	380	334	.88	11
Swansea, .	1,463	707,225	10	212	144	255	6	21	152	210	168	.80	10
Taunton, .	23,674	16,756,469	77	3,933	2,363	4,213	—	248	2,586	3,357	3,094	.92	87
Westport, .	2,706	1,335,875	19	496	332	545	5	37	289	410	341	.83	29
Totals, .	158,498	\$116,132,019	585	28,594	18,991	27,977	66	1,828	16,973	21,967	19,584	.89	677

DUKES COUNTY.

Chilmark, .	412	\$211,996	3	60	38	57	-	7	41	53	46	.87	3
Cottage City, .	709	1,438,150	4	144	109	154	-	11	104	127	111	.87	5
Edgartown, .	1,165	711,806	6	164	106	170	-	19	97	148	131	.89	6
Gay Head, .	186	20,090	1	34	31	38	1	3	31	30	20	.67	1
Gosnold, .	122	184,013	1	15	10	13	-	5	5	9	8	.89	1
Tisbury, .	1,541	724,812	7	168	121	206	1	31	151	178	147	.83	7
Totals, .	4,135	\$3,290,867	22	585	415	638	2	76	429	545	463	.85	23

BRISTOL COUNTY — CONTINUED.

TOWNS.	HIGH SCHOOLS.											
	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	Av'ge wages per month of male teachers in Public Schools.	Av'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of schools kept less than six months each.	No. of High Schools.		
										No. of High Schools.	No. of teachers.	No. of pupils.
										How supported.	Months. Days.	Salary of Principal.
Acushnet,	—	9	2	2	—	\$33 98	54	9	—	—	—	—
Attleborough,	4	70	38	26	\$100 00	41 00	495-8	9-7	—	131	9-10	\$2,200 00
Berkley,	—	11	4	3	—	27 42	54-5	7-15	—	—	—	—
Dartmouth,	6	20	3	—	52 49	25 74	169	9-5	1	29	9	660 66
Dighton,	—	15	7	6	—	34 70	90-10	8-5	—	—	—	—
Easton,	1	27	5	4	150 00	41 65	175-5	9-15	1	2	9-15	1,500 00
Fairhaven,	1	16	10	9	120 00	33 33	109	9-10	—	2	9-15	1,200 00
Fall River,	12	205	20	18	136 10	46 55	1590	10	—	10	10	2,700 00
Freetown,	1	10	1	—	36 00	30 75	70	8-15	—	—	—	—
Mansfield,	5	11	5	1	55 00	32 36	117-15	9-1	—	1	9-15	850 00
New Bedford,	9	115	—	—	158 33	51 17	1170	10	—	10	10	2,500 00
Norton,	1	8	8	5	50 00	35 05	67-10	8-10	—	—	—	—
Raynham,	—	15	8	6	—	33 60	79-9	7-15	—	—	—	—
Rehoboth,	1	25	4	—	32 00	30 48	98	7	—	—	—	—
Seekonk,	—	11	5	—	—	29 75	64	8	—	—	—	—
Somerset,	8	9	6	5	43 33	33 55	100	9	—	1	10	800 00
Swansea,	2	11	4	1	30 00	28 35	80	8	—	—	—	—
Taunton,	9	78	10	10	126 00	43 00	732-10	9-10	—	5	10	2,000 00
Westport,	7	22	7	4	42 00	25 00	162	8	—	1	9	529 00
Totals,	67	688	147	100	\$93 59	\$41 64	5,478-12	8-15	—	38	96-15	\$14,939 66

DUKES COUNTY — CONTINUED.

Chilmark,	1	3	2	1	\$36 92	\$28 37	20-10	6-17	-	-	-	-	-	-	-	-
Cottage City,	2	6	5	5	60 00	29 00	34-10	8-6	-	-	-	-	-	-	-	-
Edgartown,	1	5	-	-	60 00	30 60	48	8	-	1	1	1	29	9	\$540 00	-
Gay Head,	1	-	1	1	33 00	-	7	7	-	-	-	-	-	-	-	-
Gosnold,	-	1	1	1	-	30 00	8	8	-	-	-	-	-	-	-	-
Tisbury,	2	8	3	3	50 00	31 00	60	8	-	-	-	-	-	-	-	-
Totals, . .	7	23	12	10	\$49 99	\$30 00	178	7-13	-	1	1	1	29	9	\$540 45	-

BOARD OF EDUCATION.

BRISTOL COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes for schools, including wages of teachers, fires and school-rooms, for the school-year 1886-87.	Expense of supervision by school committee.	Salary of Superintendent of Public Schools.	Expense of Printing reports, etc.	Expense of sundries,—books, stationery, etc.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.	Amount of voluntary contributions for Public Schools.
Acushnet, . . .	\$1,700 00	\$80 00	—	\$3 50	\$280 00	—	—	\$25 00	\$2,088 50	—
Attleborough, . .	30,000 00	275 00	\$1,775 00	31 00	2,600 00	\$2,092 00	—	3,000 00	39,773 00	—
Berkley, . . .	1,200 00	56 00	—	12 00	144 73	1,938 00	\$44 00	16 00	3,410 73	—
Dartmouth, . . .	5,000 00	170 00	—	35 00	750 00	—	—	25 00	5,980 00	—
Dighton, . . .	3,000 00	—	130 00	25 00	304 00	—	75 00	40 00	3,574 00	—
Easton, . . .	8,931 34	—	448 00	—	1,444 00	—	—	1,100 31	11,923 65	—
Fairhaven, . . .	6,500 00	—	—	—	612 74	—	427 94	—	7,540 68	—
Fall River, . . .	135,188 16	400 00	2,000 00	135 00	11,997 37	—	—	6,024 60	155,745 13	—
Free town, . . .	2,000 00	100 00	—	12 00	242 81	—	—	185 89	2,540 70	—
Mansfield, . . .	5,100 00	175 15	—	28 20	478 04	—	—	365 90	6,147 29	—
New Bedford, . .	87,106 18	500 00	2,000 00	115 00	3,510 09	1,124 98	5,206 86	4,906 23	104,469 34	—
Norton, . . .	2,500 00	—	112 50	30 00	211 69	—	—	91 65	2,945 84	—
Raynham, . . .	3,000 00	150 00	166 00	16 00	145 00	—	—	138 00	3,629 00	—
Rehoboth, . . .	3,200 00	95 00	—	22 00	328 65	—	—	7 17	3,652 82	—
Seekonk, . . .	1,700 00	85 00	—	10 00	89 03	—	—	161 00	2,045 03	—
Somerset, . . .	4,774 31	65 00	—	25 20	330 61	—	—	349 74	5,544 86	—
Swansæa, . . .	2,500 00	5 00	100 00	19 20	321 87	—	669 00	31 00	3,646 07	—
Taunton, . . .	52,500 00	—	2,525 00	110 00	11,518 21	—	—	—	66,653 21	—
Wesport, . . .	4,000 00	250 00	—	10 00	427 00	—	—	206 00	4,893 00	\$56 25
Totals, . . .	\$359,899 99	\$2,406 15	\$9,256 50	\$639 10	\$35,735 84	\$5,154 98	\$6,422 80	\$16,673 49	\$436,202 85	\$56 25

DUKES COUNTY — CONTINUED.

Chilmark,	\$450 00	\$42 00	—	\$5 00	\$46 55	—	—	\$12 17	\$555 72	—
Cottage City,	1,250 00	75 00	—	25 00	176 00	\$25 00	—	35 00	1,586 00	—
Edgartown,	1,700 00	50 00	—	—	—	—	—	225 00	1,975 00	—
Gay Head,	—	—	\$18 00	9 00	32 00	—	—	10 00	75 00	—
Gosnold, .	200 00	30 00	—	2 25	24 33	—	—	12 40	268 98	—
Tisbury, .	2,338 00	75 00	—	15 00	319 10	639 80	—	125 00	3,511 90	\$15 00
Totals,	\$5,938 00	\$272 00	\$18 00	\$56 25	\$597 98	\$664 80	—	\$419 57	\$7,972 60	\$15 00

BRISTOL COUNTY — CONCLUDED.

TOWNS.	Amount of local funds the income of which can be appropriated only for the support of Schools and Academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 25, 1887.	How much of said fund was used for apparatus and books of reference.
				No. of Academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of Private Schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Acushnet,	.	-	\$152 95	-	-	-	-	-	-	\$212 56	\$10 00
Attleborough,	.	\$920 00	1,034 67	-	-	-	-	14	\$300 00	147 11	-
Berkley,	.	-	137 40	-	-	-	-	-	-	309 87	-
Dartmouth,	.	80 80	297 79	-	-	-	-	-	-	188 27	-
Dighton,	.	-	202 13	-	-	-	-	-	-	218 06	21 00
Easton,	.	7,500 00	574 49	-	-	-	-	25	450 00	52 24	-
Fairhaven,	.	-	331 83	-	-	-	-	1,500	8,000 00	182 23	-
Fall River,	.	-	-	-	-	-	-	-	-	-	-
Freetown,	.	-	174 56	-	-	-	-	-	-	215 98	-
Mansfield,	.	56 00	447 49	-	-	-	-	-	-	181 76	-
New Bedford,	.	3,000 00	782 52	1	31	\$3,225 00	25	850	4,000 00	-	-
Norton,	.	-	271 84	1	125	6,186 75	-	-	-	219 27	-
Raynham,	.	-	259 40	-	-	-	-	-	-	217 79	-
Rehoboth,	.	-	303 19	-	-	-	1	21	300 00	219 14	-
Seekonk,	.	-	244 82	-	-	-	-	-	-	215 24	-
Somerset,	.	-	243 74	-	-	-	-	-	-	179 74	-
Swansea,	.	-	-	-	-	-	-	-	-	215 44	55 44
Taunton,	.	600 00	-	1	164	5,344 50	3	116	1,500 00	-	-
Westport,	.	-	296 70	-	-	-	-	-	-	183 71	-
Totals,	.	\$12,156 80	\$5,755 52	3	320	\$14,756 25	39	2,526	\$14,550 00	\$3,158 41	\$86 44

DUKES COUNTY — CONCLUDED.

Chilmark, .	-	-	-	-	-	-	-	-	\$303 90	-
Cottage City, .	-	-	-	-	-	-	-	-	157 52	7 00
Edgartown, .	-	-	-	-	-	-	-	-	209 67	-
Gay Head, .	-	-	-	-	-	-	-	-	302 15	36 45
Gosnold, .	-	-	-	-	-	-	-	-	301 28	-
Tisbury, .	-	-	-	-	-	26	-	-	211 62	50 00
Totals, .	-	-	-	-	1	26	-	-	\$1,486 14	\$93 45

ESSEX COUNTY.

TOWNS.	Population—State Census, 1885.	Valuation—1886.	No. of Public Schools.	No. of persons in town May 1, 1886, between 5 and 15 years of age.	No. of persons in town May 1, 1885, between 8 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school-year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Amesbury, .	4,403	\$1,775,244	26	731	540	870	10	87	—	797	693	.87	28
Andover, .	5,711	3,958,260	22	904	618	1,000	14	47	606	814	744	.91	26
Beverly, .	9,186	13,503,650	36	1,656	1,175	1,583	—	118	801	1,516	1,325	.87	39
Boxford, .	840	644,548	6	112	82	137	1	9	87	115	100	.87	6
Bradford, .	3,106	1,579,896	12	554	329	673	—	55	341	562	502	.89	15
Danvers, .	7,061	3,630,760	21	1,090	636	1,213	9	77	690	1,066	981	.93	28
Essex, .	1,722	817,061	9	286	163	266	5	35	152	206	179	.87	9
Georgetown, .	2,299	1,008,158	11	476	262	470	5	30	250	384	353	.92	12
Gloucester, .	21,703	12,293,235	83	3,765	2,269	4,437	8	473	2,578	3,410	3,270	.96	101
Groveland, .	2,272	866,080	10	404	243	418	4	25	240	336	296	.88	10
Hamilton, .	851	626,250	4	105	80	124	2	4	75	97	82	.85	4
Haverhill, .	21,795	15,406,124	77	3,917	2,381	4,558	4	307	2,742	3,593	3,150	.88	96
Ipswich, .	4,207	2,119,997	16	564	370	680	—	97	367	548	495	.90	19
Lawrence, .	38,862	27,165,590	103	7,277	4,400	5,943	12	302	3,792	4,745	4,576	.96	130
Lynn, .	45,867	29,397,759	124	7,527	4,367	7,120	—	382	4,251	6,415	5,614	.88	141
Lynnfield, .	766	547,824	3	115	90	129	1	19	90	98	86	.88	3
Manchester, .	1,639	4,820,453	7	239	148	272	—	20	138	228	215	.94	7
Marblehead, .	7,517	4,383,478	15	1,439	862	1,387	—	88	850	1,265	1,086	.86	28
Merrimac, .	2,378	1,215,979	14	447	264	496	3	54	259	446	386	.87	16
Methuen, .	4,507	2,838,542	19	795	551	847	2	45	537	647	621	.96	22
Middleton, .	899	529,705	4	124	90	157	4	18	79	94	78	.83	4
Nahant, .	637	4,814,192	4	140	98	153	—	17	97	138	121	.88	5
Newbury, .	1,590	860,964	7	318	185	231	3	3	162	195	153	.78	7

Newburyport, . . .	13,716	7,587,338	34	2,515	1,621	1,783	19	142	1,004	1,245	1,084	.87	41
North Andover, . .	3,425	2,243,975	19	681	423	746	1	31	424	610	538	.88	22
Peabody, . . .	9,530	7,065,350	36	1,976	1,141	2,089	—	118	1,141	1,778	1,538	.87	42
Rockport, . . .	3,888	2,032,664	15	715	460	745	—	73	424	709	653	.92	21
Rowley, . . .	1,183	554,223	7	220	145	217	1	17	135	180	154	.86	7
Salem, . . .	28,090	25,917,624	87	5,140	2,832	3,658	—	349	2,085	3,526	3,108	.88	99
Salisbury, . . .	4,840	2,437,740	20	786	493	684	6	67	437	628	550	.88	21
Saugus, . . .	2,855	1,530,235	13	516	303	520	—	57	421	519	440	.85	14
Swampscott, . . .	2,471	3,658,460	10	347	226	465	—	32	273	380	360	.95	11
Topsfield, . . .	1,141	1,385,098	5	175	112	164	—	6	158	135	116	.86	6
Wenham, . . .	871	519,875	5	150	109	155	3	5	109	131	118	.90	5
West Newbury, . .	1,899	945,139	10	295	203	325	1	45	196	272	237	.87	10
Totals, . . .	263,727	\$190,681,470	894	46,501	28,271	44,715	118	3,254	25,991	37,828	34,002	.90	1,055

ESSEX COUNTY — CONTINUED.

TOWNS	HIGH SCHOOLS.										Salary of Principal.				
	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	Av'ge wages per month of male teachers in Public Schools.	Av'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than six months each.	No. of High Schools.					
										No. of High Schools.		No. of teachers.	No. of Pupils.		
											How supported.	Length.	Months.	Days.	
Amesbury,	3	28	7	7	\$136 00	\$29 50	196-10	7-11	-	1	4	-	Taxation,	9-10	\$1,400 00
Andover,	1	35	11	7	36 00	37 52	204-17	9	-	1	3	89	Not by tax,	9	1,600 00
Beverly,	5	34	10	-	72 00	37 47	355	10	-	1	4	158	Taxation,	10	1,300 00
Boxford,	-	7	3	2	-	32 00	50	8-7	-	-	-	-	-	-	-
Bradford,	2	15	-	-	117 88	34 85	114	9-10	-	1	2	58	Taxation,	9-10	1,000 00
Danvers,	4	28	18	11	124 00	34 00	192-10	9	-	1	3	111	Taxation,	10	1,400 00
Essex,	3	10	5	2	65 38	25 00	76-10	8-10	-	-	-	-	-	-	-
Georgetown,	1	13	2	1	105 55	32 22	99	9	-	1	2	81	Taxation,	9	950 00
Gloucester,	5	118	49	44	148 00	38 38	788-10	9-10	-	1	7	321	Taxation,	9-10	2,000 00
Groveland,	1	12	4	3	75 00	34 66	90-15	9-2	-	1	1	38	Taxation,	10	750 00
Hamilton,	-	6	2	2	-	32 53	38	9-10	-	-	-	-	-	-	-
Haverhill,	7	109	21	18	134 00	52 65	765-8	9-9	-	1	6	219	Taxation,	10	1,900 00
Ipswich,	3	19	7	5	93 33	26 72	153	9-7	-	1	2	58	Taxation,	10	1,500 00
Lawrence,	8	122	4	6	130 00	52 50	1030	10	-	1	9	358	Taxation,	10	1,800 00
Lynn,	11	130	87	57	151 04	53 12	1190-8	9-12	-	1	11	323	Taxation,	9-12	2,200 00
Lynnfield,	-	6	5	4	-	37 33	28-15	9-11	-	-	-	-	-	-	-
Manchester,	1	9	5	5	80 00	32 85	66	9-10	-	1	1	60	Taxation,	9-10	760 00
Marblehead,	2	26	7	3	100 00	41 92	150-10	10-5	-	1	2	117	Taxation,	10-5	1,004 00
Merrimac,	2	20	1	-	82 63	34 07	115-5	8-7	-	1	2	50	Taxation,	9-10	984 19
Methuen,	2	20	-	-	83 33	37 50	171	9	-	1	3	38	Taxation,	9	1,100 00
Middleton,	-	7	5	5	-	37 00	38	9-10	-	-	-	-	-	-	-
Nahant,	1	4	3	3	126 31	56 58	38	9-10	-	1	2	25	Taxation,	9-10	1,200 00
Newbury,	-	9	2	2	-	28 00	56	8	-	-	-	-	-	-	-

Newburyport,	6	37	8	5	106 96	37 47	341-14	10-1	-	1	4	150	Part tax,	10-1	1,500 00
North Andover,	3	22	3	1	85 00	36 84	180-13	9-10	-	1	2	47	Taxation,	10	1,140 00
Peabody,	5	37	13	13	108 00	42 62	360	10	-	1	3	69	Taxation,	10	1,400 00
Rockport,	2	22	5	4	72 22	34 74	121	8-4	1	1	2	59	Taxation,	9	650 00
Rowley,	-	8	1	1	-	28 00	63	9	-	-	-	-	-	-	-
Salem,	7	92	71	64	167 14	54 62	857	9-9	-	1	8	233	Taxation,	10	2,200 00
Salisbury,	3	19	2	1	76 00	31 00	65	6-5	-	1	2	37	Taxation,	10	1,200 00
Saugus,	1	14	6	5	105 28	36 92	120-6	9-5	-	1	2	57	Taxation,	9-10	1,000 00
Swampscott,	1	13	12	11	110 00	41 50	100	10	-	1	2	21	Taxation,	10	1,100 00
Topsfield,	2	5	-	-	50 00	29 41	42-10	8-10	-	-	-	-	-	-	-
Wenham,	-	6	5	5	-	33 75	45	9	-	-	-	-	-	-	-
West Newbury,	2	10	-	-	69 65	28 74	80	8	-	1	1	40	Taxation,	8	719 41
Totals, . . .	94	1,072	384	297	\$114 29	\$43 28	8,384-1	9-2	1	26	90	2,817	-	250-8	\$33,757 60

ESSEX COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes for Schools, including wages of teachers, board, fuel, care of fires and school-rooms, for the school-year 1886-87.	Expense of supervision by school committee.	Salary of Superintendent of Public Schools.	Expense of Printing reports, etc.	Expense of sundries,—books, stationery, etc.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.	Amount of voluntary contributions for Public Schools.
Amesbury,	\$6,200 00	\$291 66		—	\$1,300 00	—	—	\$300 00	\$8,091 66	—
Andover, .	10,700 00	550 00	—	\$81 54	866 54	—	\$1,966 74	934 09	15,098 91	—
Beverly, .	18,781 52	55 00	—	58 00	1,883 07	\$5,636 57	—	2,589 79	29,003 95	—
Boxford, .	1,400 00	—	\$100 00	14 00	170 32	—	—	87 32	1,771 64	—
Bradford, .	6,600 00	225 00	—	68 75	808 85	—	2,361 37	319 77	10,383 74	—
Danvers, .	13,112 00	648 00	—	77 95	1,031 51	—	—	1,734 00	16,603 46	—
Essex, .	3,000 00	180 00	—	27 00	358 85	—	—	131 44	3,697 29	—
Georgetown, .	5,250 00	270 00	—	40 00	609 71	—	75 00	200 00	6,444 71	—
Gloucester, .	50,769 00	300 00	2,200 00	250 00	5,156 62	1,881 36	6,586 14	8,560 90	75,704 02	—
Groveland, .	3,750 00	—	—	54 52	568 00	—	50 00	182 00	4,604 52	—
Hamilton, .	1,200 00	—	—	7 68	100 48	—	—	15 00	1,323 16	—
Haverhill, .	58,331 65	—	2,000 00	30 00	5,819 22	—	2,799 51	2,374 58	71,354 96	—
Ipswich, .	6,700 00	225 00	—	27 00	488 35	—	—	152 95	7,593 30	—
Lawrence, .	77,175 66	—	2,200 00	320 00	4,999 70	—	—	3,889 32	88,584 68	—
Lynn, .	101,654 57	800 00	2,250 00	261 22	8,663 37	—	7,889 91	5,633 78	127,152 85	—
Lynnfield, .	800 00	81 50	—	25 00	325 29	—	—	43 28	1,275 07	—
Manchester, .	3,000 00	228 24	—	24 50	312 40	—	375 56	128 17	4,068 87	—
Marblehead, .	14,616 75	—	—	61 40	1,850 85	—	—	336 55	16,865 55	—
Merrimac, .	5,400 00	160 00	—	—	425 00	—	280 00	170 00	6,355 00	—
Methuen, .	9,000 00	400 00	—	32 00	931 43	—	—	931 01	11,294 44	—
Middleton, .	1,200 00	80 00	—	38 00	175 00	—	—	35 00	1,528 00	—
Nahant, .	3,819 32	175 00	—	78 75	376 49	—	—	74 94	4,524 50	—
Newbury, .	1,700 00	60 00	—	15 00	144 76	—	—	80 00	1,999 76	—

Newburyport, .	20,231 62	300 00	-	40 00	1,703 79	-	500 00	1,000 00	23,775 41	-
North Andover,	9,800 00	350 00	-	45 00	798 55	3,867 94	142 61	118 34	15,122 44	-
Peabody, .	24,751 46	585 00	-	58 12	1,272 09	-	767 61	624 04	28,058 32	-
Rockport, .	6,827 89	350 00	-	35 00	559 04	-	-	578 07	8,350 00	-
Rowley, .	1,833 47	75 00	-	-	190 00	-	-	61 95	2,160 42	-
Salem, .	71,496 00	1,000 00	-	126 00	8,885 16	-	6,542 17	4,177 33	92,226 66	-
Salisbury, .	8,430 00	92 66	-	20 00	385 00	-	-	185 00	9,112 66	-
Saugus, .	6,319 54	150 00	-	20 00	905 00	-	-	1,696 56	9,091 75	-
Swampscott, .	6,246 85	300 00	-	-	472 91	-	120 22	456 26	7,596 24	-
Topsfield, .	1,400 00	75 00	-	14 00	275 26	-	-	37 23	1,801 49	-
Wenham, .	1,400 00	91 00	-	22 00	183 63	-	-	72 20	1,768 83	-
West Newbury,	3,560 19	152 37	-	30 00	304 25	-	-	230 44	4,277 25	\$110 00
Totals, .	\$566,457 49	\$8,250 43	\$8,750 00	\$2,002 43	\$53,300 49	\$11,385 87	\$30,456 84	\$38,141 31	\$718,665 51	\$110 00

ESSEX COUNTY — CONCLUDED.

TOWNS.	Amount of local funds, the income of which can be appropriated only for the support of Schools and Acade- mies.	Income of local funds.	Income of surplus rev- enue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 25, 1886.	How much of said fund was used for appa- ratus and books of reference.
				No. of Acade- mies.	Whole No. at- tending for the year.	Amount of tui- tion paid.	No. of Private Schools.	Whole No. at- tending for the year.	Estimated amount of tuition.		
Amesbury,	—	—	\$173 29	—	—	—	2	380	\$3,800 00	\$193 51	—
Andover,	\$360,675 00	\$12,595 00	—	2	378	\$21,536 00	1	12	252 00	63 85	—
Beverly,	3,000 00	180 00	736 66	—	—	—	1	20	25 00	—	—
Boxford,	2,437 94	128 00	51 50	—	—	—	1	20	—	209 33	—
Bradford,	—	—	250 88	1	165	7,450 00	1	19	2,320 00	185 92	—
Danvers,	—	—	439 91	—	—	—	—	—	300 00	74 26	—
Essex,	—	—	—	—	—	—	—	—	—	219 07	—
Georgetown,	—	—	180 57	—	—	—	—	—	—	181 69	—
Gloucester,	—	—	—	—	—	—	3	80	1,200 00	—	—
Groveland,	—	—	—	—	—	—	—	—	—	227 33	—
Hamilton,	—	—	—	—	—	—	—	—	—	207 59	—
Haverhill,	6,020 00	430 00	—	—	—	—	2	45	1,000 00	—	—
Ipswich,	11,097 66	450 46	392 57	—	—	—	1	10	100 00	191 36	—
Lawrence,	—	—	—	—	—	—	*3	1,594	6,850 00	—	—
Lynn,	—	—	—	—	—	—	5	580	3,500 00	—	—
Lynnfield,	—	—	100 14	—	—	—	—	—	—	207 72	—
Manchester,	—	—	—	—	—	—	—	—	—	16 72	—
Marblehead,	—	—	770 21	—	—	—	2	40	150 00	95 34	—
Merrimac,	10,000 00	—	193 89	—	—	—	—	—	—	178 00	—
Methuen,	—	—	—	—	—	—	—	—	—	202 84	—
Middleton,	—	—	—	—	—	—	—	—	—	207 18	—
Nahant,	—	—	—	—	—	—	—	—	—	9 87	—
Newbury,	20,000 00	1,200 00	118 24	1	70	2,500 00	1	20	400 00	220 75	—

Newburyport,	65,000 00	3,675 00	-	1	90	-	4	773	3,000 00	173 29	-
North Andover,	-	-	-	-	-	-	1	6	200 00	195 72	-
Peabody,	10,000 00	640 00	876 21	-	-	-	2	25	500 00	119 04	-
Rockport,	-	-	-	-	-	-	1	10	200 00	204 72	-
Rowley,	-	-	-	-	-	-	1	4	50 00	214 84	-
Salem,	12,925 00	775 50	2,086 47	-	-	-	12	1,300	10,000 00	-	-
Salisbury,	-	-	259 94	-	-	-	-	-	-	206 13	-
Saugus,	-	-	-	-	-	-	-	-	-	182 63	-
Swampscott,	-	-	-	-	-	-	-	-	-	23 37	\$23 37
Topsfield,	-	-	145 95	-	-	-	-	-	-	212 02	-
Wenham,	-	-	139 03	-	-	-	-	-	-	209 40	-
West Newbury,	-	-	-	-	-	-	-	-	-	219 94	-
Totals,	\$501,155 60	\$20,073 96	\$6,915 46	5	703	\$31,486 00	44	4,938	\$33,847 00	\$4,853 43	\$23 37

* Parochial Schools.

FRANKLIN COUNTY.

TOWNS.	Population—State Census, 1885.	Valuation—1886	No. of Public Schools.	No. of persons in town May 1, 1886, between 5 and 15 years of age.	No. of persons in town May 1, 1886, between 15 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 5 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school-year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Ashfield, .	1,097	\$457,676	12	176	121	201	4	26	115	159	144	.90	11
Barnardston, .	930	388,511	6	150	99	155	2	3	98	117	110	.94	6
Buckland, .	1,760	504,357	10	294	214	302	1	1	214	257	224	.87	10
Charlemont, .	958	335,705	9	157	88	185	9	18	88	159	149	.94	10
Colrain, .	1,605	547,694	14	330	230	350	5	48	230	277	250	.90	14
Conway, .	1,573	747,782	15	291	188	306	5	33	182	241	221	.92	15
Deerfield, .	3,042	1,197,505	21	589	300	559	2	22	296	530	480	.91	21
Erving, .	873	330,026	5	169	109	173	—	9	109	134	117	.87	5
Gill, .	860	429,299	7	121	81	145	3	11	89	110	103	.94	7
Greenfield, .	4,869	4,098,015	24	910	554	1,008	6	141	520	859	779	.91	30
Hawley, .	545	154,497	8	103	73	122	—	19	13	110	90	.82	8
Heath, .	568	161,942	7	117	70	140	2	20	69	120	111	.92	7
Leverett, .	779	286,103	6	127	76	143	4	18	74	112	102	.91	6
Leyden, .	447	181,579	6	110	70	134	1	23	70	97	78	.80	6
Monroe, .	176	53,908	3	33	25	62	1	3	27	43	38	.88	3
Montague, .	5,629	2,889,187	26	1,350	925	1,150	1	47	775	1,057	933	.88	28
New Salem, .	832	292,860	8	126	101	163	4	5	104	116	102	.88	8
Northfield, .	1,705	653,756	9	265	174	272	4	24	166	216	191	.88	9
Orange, .	3,650	1,781,494	21	636	357	735	4	76	391	619	583	.94	23
Rowe, .	582	218,475	7	102	75	120	—	18	75	102	91	.90	7
Shelburne, .	1,614	842,758	11	275	110	273	1	15	192	214	198	.93	11
Shutesbury, .	485	149,722	6	102	55	115	4	13	55	91	84	.92	6
Sunderland, .	700	428,680	5	139	80	139	3	22	76	139	119	.86	5

Warwick,	662	272,590	9	110	64	115	-	12	64	109	100	.92	9
Wendell,	509	205,629	5	69	55	103	5	8	55	68	61	.90	5
Whately,	999	396,878	6	201	154	187	3	8	114	128	109	.85	6
Totals,	37,449	\$18,006,628	266	7,052	4,448	7,357	74	643	4,261	6,184	5,567	.90	276

HAMPDEN COUNTY.

Agawam,	2,357	\$1,213,615	10	446	339	504	15	33	336	396	328	.83	11
Blanford,	954	358,480	12	205	121	226	5	36	118	196	182	.93	12
Brimfield,	1,137	480,920	8	175	118	191	6	11	109	147	131	.89	8
Chester,	1,318	514,688	9	215	167	233	6	16	211	156	136	.87	9
Chicopee,	11,516	5,641,780	30	2,305	1,442	1,710	12	91	917	1,214	1,144	.94	37
Granville,	1,193	342,524	10	185	125	256	3	53	131	193	166	.86	10
Hampden,	868	406,339	6	178	113	159	-	8	104	124	110	.89	6
Holland,	229	107,371	2	40	24	44	1	3	24	29	26	.90	2
Holyoke,	27,895	16,874,635	70	6,122	4,330	4,151	4	252	2,361	2,890	2,688	.93	89
Longmeadow,	1,677	944,025	12	263	159	311	6	35	184	271	206	.76	12
Ludlow,	1,649	808,177	12	380	224	442	3	41	253	294	261	.89	13
Monson,	3,958	1,395,288	19	634	406	640	7	7	404	534	486	.91	19
Montgomery,	278	136,452	5	49	35	58	3	4	35	48	40	.83	5
Palmer,	5,923	2,581,113	27	1,164	735	1,280	4	53	959	912	839	.92	28
Russell,	847	459,909	5	143	94	146	4	3	105	118	88	.75	5
Southwick,	982	556,748	10	181	121	237	5	45	124	180	161	.89	11
Springfield,	37,575	36,782,203	105	6,472	4,911	5,813	11	554	3,890	4,648	4,341	.90	124
Tolland,	422	160,690	7	63	54	88	8	12	49	66	60	.90	7
Wales,	853	283,736	5	148	68	157	-	7	104	111	100	.90	5
Westfield,	8,961	6,409,451	35	1,628	1,097	1,636	5	229	1,010	1,393	1,241	.89	45
West Springfield,	4,448	3,032,897	22	898	545	1,019	1	70	611	841	755	.90	26
Wilbraham,	1,724	692,111	10	240	180	310	5	5	208	250	221	.88	10
Totals,	116,764	\$80,183,152	431	22,134	15,408	19,611	114	1,568	12,247	15,011	13,710	.91	494

SCHOOL RETURNS.

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Warwick,	-	11	-	-	-	20 44	54	6	-	-	-	-	-
Wendell,	-	8	-	-	-	20 67	36	7-2	-	-	-	-	-
Whately,	1	8	-	-	25 00	24 00	49	8-1	-	-	-	-	-
Totals,	38	358	36	39	\$36 47	\$27 31	1,987-8	7-4	2	8	15	437	\$4,613 00

HAMPDEN COUNTY — CONTINUED.

Agawam,	1	18	3	2	\$12 00	\$35 80	82-20	8-5	-	-	-	-	-	-
Blandford,	-	19	1	-	-	22 22	77	5	2	-	-	-	-	-
Brimfield,	3	9	-	-	26 00	25 00	53-5	6-14	-	4	96	Endowm't,	10	\$1,200 00
Chester,	-	19	5	-	-	28 50	64	7-2	-	-	-	-	-	-
Chicopee,	4	33	10	7	95 00	39 80	264-12	9-5	-	2	50 } 42 }	Taxation,	9-10	{ 1,400 00 1,200 00 }
Granville,	1	15	4	2	28 00	28 31	75-5	7-10	-	-	-	-	-	-
Hampden,	1	5	1	1	29 00	29 00	51	9	-	-	-	-	-	-
Holland,	-	4	-	-	-	20 16	15-10	7-15	-	-	-	-	-	-
Holyoke,	7	95	25	22	121 40	41 90	674-7	9-18	2	1	133	Taxation,	9-17	1,900 00
Longmeadow,	3	13	3	3	39 00	33 17	102-10	8-10	-	-	-	-	-	-
Ludlow,	-	15	4	2	-	27 72	101-10	8-9	1	-	-	-	-	-
Monson,	7	21	2	1	38 00	32 00	158	8-7	-	1	81	Part tax,	9-15	1,500 00
Montgomery,	-	9	1	1	-	20 40	34	6-16	-	-	-	-	-	-
Palmer,	7	21	9	5	57 57	32 95	243-10	9-1	-	1	63	Taxation,	10	1,150 00
Russell,	-	7	1	1	-	29 20	39	7-16	-	-	-	-	-	-
Southwick,	2	16	4	1	42 00	24 00	82-10	8-5	-	-	-	-	-	-
Springfield,	11	120	40	28	182 00	65 00	1,050	10	-	1	374	Taxation,	10	2,700 00
Tolland,	-	8	1	-	-	21 33	43	6	-	-	-	-	-	-
Wales,	1	5	-	-	30 00	22 75	39-15	7-19	-	-	-	-	-	-
Westfield,	4	52	41	29	120 84	36 97	315	9-7	-	1	167	Taxation,	10	1,700 00
West Springfield,	1	29	11	11	120 00	33 00	199	9	-	1	65	Taxation,	10	1,200 00
Wilbraham,	-	13	-	-	-	29 00	68-15	8-4	-	-	-	-	-	-
Totals,	53	546	166	116	\$92 12	\$41 39	3,834-9	8-2	5	9	36	1,071	79-2	\$13,950 00

BOARD OF EDUCATION.

FRANKLIN COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes for Schools, including wages of teachers, board, fuel, care of fires and school-rooms, for the school-year 1886-87.	Expense of supervision by school committee.	Salary of Superintendent of Public Schools.	Expense of Printing reports, etc.	Expense of sundries,—books, stationery, etc.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.	Amount of voluntary contributions for Public Schools.
Ashfield, . .	\$1,475 00	\$96 75	—	\$9 90	\$130 98	—	\$549 21	\$15 00	\$2,276 84	—
Barnardston, .	2,050 00	70 56	—	—	154 88	—	95 53	53 68	2,424 65	\$340 00
Buckland, . .	2,200 00	165 00	—	10 00	358 30	—	355 38	28 37	3,117 05	—
Charlemont, .	1,000 00	80 00	—	13 00	113 05	—	166 53	28 56	1,401 14	—
Colrain, . .	2,400 00	152 25	—	6 40	284 86	—	—	322 20	3,165 71	—
Conway, . .	2,500 00	164 87	—	12 00	289 30	—	—	66 49	3,032 66	—
Deerfield, . .	5,000 00	300 00	—	20 00	800 00	—	—	500 00	6,620 00	—
Erving, . .	1,200 00	30 22	—	8 70	172 47	—	—	26 02	1,437 41	—
Gill, . .	1,100 00	60 00	—	6 00	166 96	—	—	22 75	1,355 71	—
Greenfield, .	11,809 87	400 00	—	—	2,007 40	—	1,008 05	644 16	15,869 48	—
Hawley, . .	900 00	64 15	—	9 20	98 13	—	—	16 40	1,087 88	—
Heath, . .	800 00	53 80	—	6 20	140 99	—	—	14 17	1,015 16	—
Leverett, . .	800 00	75 42	—	5 00	146 05	—	—	85 22	1,111 69	7 00
Leyden, . .	800 00	50 00	—	5 00	57 00	—	90 00	10 00	1,012 00	—
Monroe, . .	200 00	8 00	—	6 00	44 45	—	—	—	258 45	—
Montague, .	10,279 16	300 00	—	20 00	1,460 71	—	200 00	469 72	12,729 59	150 00
New Salem, .	1,100 00	48 00	—	5 00	130 71	—	—	18 45	1,302 16	—
Northfield, .	2,200 00	119 01	—	25 90	265 69	—	—	150 00	2,760 60	—
Orange, . .	6,725 00	246 50	—	14 00	1,055 34	\$1,701 25	194 86	544 53	10,481 48	—
Rowe, . .	700 00	30 00	—	11 25	—	—	—	—	741 25	—
Shelburne, .	3,000 00	100 00	—	17 00	282 36	—	—	64 30	3,468 66	—
Shutesbury, .	600 00	40 00	—	4 50	130 86	375 25	—	4 77	1,155 38	—
Sunderland, .	1,100 00	50 00	—	8 00	111 76	—	55 71	59 98	1,385 45	—

HAMPDEN COUNTY — CONTINUED.

Warwick, .	908 60	—	\$60 00	12 00	125 00	—	52 60	1,158 20	—
Wendell, .	700 00	32 00	—	6 00	53 04	—	2 10	793 14	—
Whately, .	1,200 00	70 00	—	—	189 00	750 56	15 00	2,224 56	—
Totals,	\$62,747 63	\$2,806 53	\$60 00	\$241 05	\$8,769 29	\$2,827 06	\$3,214 47	\$83,386 30	\$497 00

Agawam, .	\$3,250 00	\$115 00	—	\$10 00	\$360 00	—	\$75 00	\$3,946 45	—
Blandford, .	1,147 55	24 81	\$100 00	6 00	245 55	—	—	1,529 41	—
Brimfield, .	1,400 00	92 00	—	5 22	74 79	—	—	1,846 62	—
Chester, .	1,600 00	137 50	—	—	81 23	—	—	1,845 23	—
Chicopee, .	20,756 52	—	1,550 00	—	3,711 59	\$737 45	—	26,811 04	\$137 00
Granville, .	2,285 00	125 00	—	—	230 44	—	31 50	3,486 04	—
Hampden, .	1,300 00	103 00	—	18 00	118 25	—	307 04	1,846 29	—
Holland, .	200 00	28 50	—	3 00	56 80	—	245 36	533 66	—
Holyoke, .	57,927 11	600 00	2,000 00	112 00	3,984 85	—	3,000 81	69,734 72	—
Longmeadow, .	3,300 00	206 20	—	25 00	262 56	—	157 36	4,030 86	—
Ludlow, .	3,500 00	150 00	—	9 00	268 68	—	239 21	4,207 70	1,036 00
Monson, .	6,500 00	413 42	—	35 00	770 43	—	—	7,824 35	—
Montgomery, .	500 00	16 00	—	—	33 05	—	—	559 47	—
Palmer, .	11,600 00	600 00	—	40 00	758 17	—	813 80	14,392 10	—
Russell, .	1,000 00	43 75	—	10 00	221 21	—	—	1,279 46	—
Southwick, .	1,500 00	225 00	—	30 00	175 00	—	420 00	2,686 00	—
Springfield, .	98,270 00	—	3,000 00	75 00	8,645 53	—	2,800 00	117,011 79	—
Tolland, .	500 00	27 50	—	3 00	94 82	348 85	19 00	993 17	—
Wales, .	800 00	44 15	—	2 00	173 25	—	—	1,020 76	—
Westfield, .	21,500 00	700 00	—	76 80	2,220 88	—	1,624 52	27,352 88	—
W. Springfield, .	9,350 00	303 15	—	13 00	861 62	—	454 00	11,509 74	—
Wilbraham, .	2,500 00	108 75	—	—	250 00	—	—	2,958 75	—
Totals,	\$250,686 18	\$4,063 73	\$6,650 00	\$473 02	\$23,598 70	\$1,086 30	\$10,168 60	\$307,406 49	\$1,173 00

Warwick, . . .	500 00	20 20	-	-	-	-	-	-	307 86	-
Wendell, . . .	540 00	32 40	-	-	-	-	-	-	305 51	-
Whately, . . .	-	-	-	-	-	1	26	130 00	313 63	-
Totals, . . .	\$69,585 33	\$3,517 05	\$864 76	6	740	\$20,663 17	5	99	\$5,605 00	\$371 27

HAMPDEN COUNTY—CONCLUDED.

Agawam, . . .	-	-	\$174 00	-	-	-	1	-	-	\$181 09	-
Blandford, . . .	\$3,000 00	\$180 00	86 90	-	-	-	1	6	\$70 00	314 30	-
Brimfield, . . .	-	-	-	-	-	-	-	-	-	313 16	-
Chester, . . .	-	-	-	-	-	-	-	-	-	215 51	-
Chicopee, . . .	-	-	-	-	-	-	4	950	6,000 00	160 54	\$140 80
Granville, . . .	-	-	-	-	-	-	1	8	90 00	315 31	6 00
Hampden, . . .	-	-	105 65	-	-	-	1	9	50 00	311 48	-
Holland, . . .	222 22	13 33	31 73	-	-	-	5	2,565	11,400 00	302 89	40 00
Holyoke, . . .	-	-	891 35	-	-	-	-	-	-	215 58	-
Longmeadow, . . .	731 00	40 20	162 50	-	-	-	-	-	-	224 84	-
Ludlow, . . .	-	-	171 20	-	-	-	-	-	-	191 96	-
Monson, . . .	23,000 00	1,000 00	355 16	1	-	\$1,536 50	-	-	-	303 09	-
Montgomery, . . .	-	-	38 80	-	-	-	-	-	-	229 97	84 00
Palmer, . . .	850 00	34 34	343 32	-	-	-	-	-	-	311 15	-
Russell, . . .	-	-	77 64	-	-	-	-	-	-	212 56	-
Southwick, . . .	15,683 84	860 89	86 35	-	-	-	-	-	-	-	-
Springfield, . . .	-	-	-	-	-	-	8	1,350	15,000 00	-	-
Tolland, . . .	-	-	40 66	-	-	-	-	-	-	304 63	94 82
Wales, . . .	-	-	-	-	-	-	-	-	-	310 21	-
Westfield, . . .	108,366 00	4,571 39	-	-	-	-	1	25	337 00	110 99	120 05
West Springfield, . . .	15,000 00	761 92	391 38	-	-	-	-	-	-	57 54	16 00
Wilbraham, . . .	1,308 40	78 50	100 25	1	413	10,939 83	-	-	-	216 92	-
Totals, . . .	\$168,161 46	\$7,540 57	\$3,056 89	3	413	\$12,476 33	21	4,913	\$32,947 00	\$4,803 72	\$501 67

HAMPSHIRE COUNTY.

TOWNS.	Population—State Census, 1885.	Valuation—1886.	No. of Public Schools.	No. of persons in town May 1, 1886, between 5 and 15 years of age.	No. of persons in town May 1, 1886, between 16 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school-year.	The percent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Amherst, .	4,199	\$2,835,340	19	601	377	723	2	126	380	587	541	.92	23
Belchertown, .	2,307	819,000	20	465	287	523	10	69	283	417	337	.81	20
Chesterfield, .	698	286,715	7	128	81	142	4	20	81	119	108	.90	7
Cummington, .	805	314,159	7	135	91	115	1	17	89	160	150	.91	8
Easthampton, .	4,291	2,454,305	20	782	480	813	4	50	511	695	622	.90	23
Enfield, .	1,010	579,730	7	152	93	166	3	12	89	137	125	.91	7
Goshen, .	336	135,683	4	59	32	62	—	10	32	50	46	.92	8
Granby, .	729	438,470	9	133	92	161	1	23	74	138	126	.91	9
Greenwich, .	532	279,456	4	72	51	80	4	8	53	68	62	.91	4
Hadley, .	1,747	985,617	13	335	244	383	8	26	211	316	283	.90	13
Hatfield, .	1,367	887,917	8	256	157	248	—	5	159	194	170	.88	8
Huntington, .	1,267	474,554	9	219	151	276	5	8	172	201	175	.87	9
Middlefield, .	513	243,895	7	94	60	123	3	9	69	96	89	.93	7
Northampton, .	12,896	8,646,681	59	2,370	1,663	2,412	61	155	1,468	2,014	1,834	.91	64
Pelham, .	549	169,902	4	97	79	111	5	15	79	85	75	.86	4
Plainfield, .	453	145,490	4	67	38	81	1	16	36	36	31	.86	9
Prescott, .	448	179,385	5	91	58	102	3	18	58	78	71	.91	5
Southampton, .	1,025	1,580,575	7	179	117	174	2	8	112	159	130	.82	7
South Hadley, .	3,949	483,316	17	688	480	859	—	110	592	648	580	.90	20
Ware, .	6,003	3,982,733	24	1,243	881	1,233	2	81	689	897	791	.88	27
Westhampton, .	541	248,822	5	103	60	90	—	4	50	72	60	.83	5

Williamsburg, . . .	2,044	859,795	16	428	235	454	5	30	235	343	304	.88	16
Worthington, . . .	763	333,063	9	126	75	140	3	11	75	109	96	.88	9
Totals, . . .	48,472	\$27,364,603	284	8,823	5,882	9,471	127	831	5,597	7,619	6,806	.89	312

SCHOOL RETURNS.

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Williamsburg,	4	15	1	-	49 00	25 00	126	7-17	-	1	1	31	Taxation,	8	528 00
Worthington,	-	15	4	-	-	20 88	65-10	7-5	1	-	-	-	-	-	-
Totals, . .	45	343	52	23	\$51 42	\$28 89	2,290	7-12	6	11	24	632	-	83-3	\$8,455 60

HAMPSHIRE COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes for Schools, including wages of teachers, board, fuel, care of fires and school-rooms, for the school-year 1886-87.	Expense of supervision by school committee.	Salary of Superintendent of Public Schools.	Expense of Printing reports, etc.	Expense of sundries,—books, stationery, etc.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.	Amount of voluntary contributions for Public Schools.
Amherst,	\$7,791 01	—	\$800 00	\$32 50	\$711 98	—	—	\$351 32	\$9,686 81	—
Belchertown,	3,800 00	\$302 16	—	22 00	336 93	—	\$2,643 22	147 82	7,252 13	\$7 00
Chesterfield,	900 00	50 00	—	10 00	164 00	—	4 00	5 00	1,133 00	—
Cummington,	800 00	30 00	—	6 00	143 55	—	—	62 26	1,041 81	—
Easthampton,	7,650 00	200 00	—	15 00	1,000 00	—	—	400 00	9,265 00	—
Enfield,	1,700 00	107 18	—	11 00	300 00	—	154 54	26 09	2,298 81	—
Goshen,	314 00	20 50	—	4 00	39 15	—	—	25 00	402 65	—
Granby,	1,800 00	112 75	—	10 00	186 29	—	—	6 00	2,115 04	—
Greenwich,	700 00	50 00	—	10 00	72 64	—	—	240 56	1,073 20	—
Hadley,	2,900 00	160 75	—	12 00	311 33	—	408 82	161 12	3,954 02	—
Hatfield,	1,700 00	150 00	—	21 50	228 57	—	—	230 00	2,330 07	—
Huntington,	1,500 00	161 00	—	10 00	205 99	—	—	46 96	1,923 95	—
Middlefield,	800 00	52 40	—	7 00	144 10	—	—	81 47	1,084 97	—
Northampton,	26,378 50	—	1,000 00	55 80	2,489 52	—	1,750 54	1,583 55	33,257 91	—
Pelham,	700 00	—	50 00	2 00	131 26	—	—	34 83	918 09	—
Plainfield,	350 00	33 75	—	4 74	—	—	—	23 14	411 63	—
Prescott,	500 00	—	49 50	5 00	26 23	—	246 65	3 78	831 16	—
Southampton,	1,450 00	97 00	—	—	150 00	—	125 00	40 43	2,562 43	—
South Hadley,	7,000 00	155 00	—	—	400 00	—	—	400 00	7,955 00	—
Ware,	11,000 00	475 00	—	—	1,104 97	—	1,608 31	391 30	18,058 56	—
Westhampton	866 00	52 00	—	—	90 97	—	195 75	4 79	1,209 51	—

SCHOOL RETURNS.

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Williamsburg, .	3,000 00	150 00	-	16 00	218 47	-	104 87	96 14	3,585 48	-
Worthington, .	1,000 00	75 00	-	8 00	154 75	-	-	50 00	1,287 75	-
Totals, .	\$84,599 51	\$2,434 49	\$1,899 50	\$262 54	\$8,610 70	\$4,178 98	\$7,241 70	\$4,411 56	\$113,638 98	\$7 00

BOARD OF EDUCATION.

HAMPSHIRE COUNTY — CONCLUDED.

TOWNS.	Amount of local funds the income of which can be appropriated only for the support of Schools and Academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 25, 1887.	How much of said fund was used for apparatus and books of reference.
				No. of Academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of Private Schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Amherst,	\$8,000 00	\$300 00	\$265 33	1	77	1	5	77	\$3,733 00	190 29	—
Belchertown,	6,000 00	255 00	179 89	1	—	1	1	—	—	231 89	\$12 00
Chesterfield,	1,100 00	55 00	—	1	—	1	1	—	—	308 80	28 00
Cummington,	—	—	48 20	1	35	1	1	35	110 00	308 66	15 00
Easthampton,	256,000 00	13,000 00	180 76	1	—	1	1	—	—	200 76	—
Enfield,	—	—	—	1	—	1	1	—	—	211 48	—
Goshen,	—	—	—	1	—	1	1	—	—	303 56	—
Granby,	—	—	75 45	1	—	1	1	—	—	309 27	—
Greenwich,	300 00	30 00	30 60	1	—	1	1	—	—	304 57	—
Hadley,	40,000 00	2,893 29	—	1	—	1	1	—	—	172 69	—
Hatfield,	55,000 00	2,780 00	—	1	75	\$500 00	1	75	—	217 59	15 00
Huntington,	—	—	129 52	1	—	1	1	—	—	313 83	—
Middlefield,	—	—	85 72	1	—	1	1	—	—	307 72	—
Northampton,	—	—	641 21	1	270	—	4	270	11,160 00	150 47	—
Pelham,	3,077 93	—	63 71	1	—	1	1	—	—	306 65	—
Plainfield,	—	—	27 24	1	—	1	1	—	—	305 10	—
Prescott,	—	—	25 99	1	—	1	1	—	—	305 91	—
Southampton,	—	—	87 19	1	—	1	1	—	—	312 42	—
South Hadley,	—	—	202 46	1	325	—	1	325	—	197 13	—
Ware,	—	—	—	1	—	1	1	—	75 00	229 36	63 78
Westhampton,	—	—	32 69	1	8	—	1	8	250 00	308 26	—

Williamsburg,	17,000 00	1,240 78	187 75	-	-	-	-	-	-	228 27	-
Worthington,	4,403 00	185 88	67 90	-	-	-	-	-	-	307 92	-
Totals, .	\$390,880 93	\$20,739 95	\$2,331 61	4	400	\$500 00	12	405	\$15,328 00	\$6,032 60	\$133 78

MIDDLESEX COUNTY.

TOWNS.	Population—State Census, 1885.	Valuation—1886.	No. of Public Schools.	No. of persons in town May 1, 1886, between 5 and 15 years of age.	No. of persons in town May 1, 1886, between 16 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 5 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school-year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Acton,	1,785	\$1,286,089	10	259	175	339	2	55	200	269	242	.90	10
Arlington,	4,673	4,730,202	22	955	594	1,018	2	121	563	916	817	.89	25
Ashby,	871	474,797	10	144	98	173	2	27	98	177	155	.88	11
Ashland,	2,633	1,373,193	12	438	294	468	2	31	263	397	357	.90	13
Ayer,	2,190	1,197,325	10	440	270	491	—	47	273	418	382	.91	10
Bedford,	930	779,773	6	129	90	151	—	24	85	119	106	.89	6
Belmont,	1,639	2,858,907	9	321	196	347	1	38	211	308	271	.88	12
BillERICA,	2,161	1,610,872	10	373	235	389	2	15	235	299	261	.87	10
Boxborough,	348	254,397	4	56	37	70	2	15	37	53	50	.94	4
Burlington,	604	476,939	6	137	85	121	2	7	76	99	92	.92	6
Cambridge,	59,658	59,445,670	224	11,131	6,876	11,012	—	739	6,689	9,246	8,530	.92	233
Carlisle,	526	387,570	5	86	63	90	3	7	63	69	64	.93	5
Chelmsford,	2,304	1,582,345	15	458	286	501	8	54	284	424	371	.87	16
Concord,	3,727	3,181,813	14	601	419	785	4	122	414	596	529	.89	17
Dracut,	1,927.	1,212,085	11	352	199	407	—	12	209	251	219	.87	11
Dunstable,	431	310,220	5	70	38	96	2	19	50	67	61	.91	5
Everett,	5,825	5,461,800	26	1,145	693	1,424	—	87	870	1,083	985	.91	30
Frammingham,	8,275	6,278,460	32	1,442	1,000	1,737	2	157	1,100	1,389	1,335	.96	39
Groton,	1,987	2,647,879	12	284	199	325	14	27	199	258	230	.89	13
Holliston,	2,926	1,526,654	15	490	294	578	3	41	283	473	419	.89	17
Hopkinton,	3,922	2,323,094	21	782	492	880	5	85	512	740	667	.90	22
Hudson,	3,968	2,124,490	18	805	522	918	12	71	680	815	723	.89	20
Lexington,	2,718	2,890,041	11	460	308	556	3	93	278	370	343	.93	12

SCHOOL RETURNS.

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Lincoln,	901	1,306,768	5	174	108	184	—	22	109	148	119	.80	5
Littleton,	1,067	765,097	7	185	121	275	—	30	121	176	152	.86	7
Lowell,	64,107	53,115,382	44	11,355	6,159	9,326	—	718	5,541	6,861	6,180	.90	184
Malden,	16,407	13,385,069	50	2,629	1,830	2,687	—	235	1,402	2,106	1,907	.91	60
Marlborough,	10,941	4,233,197	44	2,413	1,639	2,300	10	100	1,420	1,960	1,715	.88	50
Maynard,	2,703	1,956,450	9	526	319	554	—	28	319	443	387	.87	11
Medford,	9,042	8,147,734	34	1,558	1,024	1,720	—	249	996	1,489	1,394	.94	39
Melrose,	6,101	5,071,400	26	1,356	1,225	1,370	—	150	747	1,256	1,131	.90	28
Natick,	8,460	4,988,015	35	1,526	838	1,886	—	360	1,015	1,606	1,480	.90	40
Newton,	19,759	31,016,930	86	3,785	2,623	4,106	9	563	2,332	3,528	3,239	.92	101
North Reading,	878	496,875	6	145	85	156	—	9	94	120	99	.83	6
Pepperell,	2,587	1,492,114	11	429	262	509	8	42	299	418	373	.89	14
Reading,	3,539	2,392,115	15	592	384	674	—	93	405	564	513	.91	17
Sherborn,	1,391	837,010	6	190	140	229	1	1	145	152	129	.85	6
Shirley,	1,242	676,677	7	221	197	247	2	17	187	209	181	.87	7
Somerville,	29,971	26,003,200	104	5,296	3,557	6,350	—	558	3,557	4,985	4,678	.94	120
Stoneham,	5,659	3,194,215	18	936	573	1,074	—	92	601	899	820	.91	25
Stow,	976	954,938	6	185	130	197	1	22	108	156	142	.91	6
Sudbury,	1,165	1,061,155	7	179	108	194	3	8	88	176	149	.85	7
Tewksbury,	2,333	1,356,700	7	244	148	263	—	17	143	185	159	.86	7
Townsend,	1,846	1,023,066	16	291	249	328	7	30	186	278	248	.89	18
Tyngsborough,	604	339,281	8	86	60	107	2	23	60	94	86	.91	7
Wakefield,	6,060	3,906,505	23	1,208	850	1,277	—	105	842	1,082	956	.88	28
Waltham,	14,609	11,398,764	51	2,488	1,480	2,959	5	208	1,730	2,539	2,354	.93	66
Watertown,	6,238	6,555,124	26	1,091	856	1,348	3	133	773	1,102	1,017	.92	31
Wayland,	1,946	1,280,785	11	413	251	398	2	36	251	348	318	.91	11
Westford,	2,193	1,008,641	14	380	243	452	11	14	264	337	304	.90	14
Weston,	1,427	1,900,983	8	248	159	248	9	21	159	223	198	.89	8
Wilmington,	991	586,165	6	157	119	181	4	12	117	160	114	.71	8
Winchester,	4,390	4,273,774	17	820	485	908	1	97	537	791	731	.92	92
Woburn,	11,750	8,095,815	43	2,637	1,526	2,360	—	266	1,269	1,862	1,687	.91	46
Totals,	357,311	\$307,284,559	1,258	65,104	41,211	67,743	149	6,153	39,489	55,089	50,169	.91	1,616

MIDDLESEX COUNTY — CONTINUED.

TOWNS.	HIGH SCHOOLS.												
	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	Av'ge wages per month of male teachers in Public Schools.	Av'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of schools kept less than six months each.	No. of High Schools.			
										No. of High Schools.	No. of teachers.	No. of pupils.	
										How supported.	Length.	Salary of Principal.	
											Months.	Days.	
Acton, .	4	12	7	4	\$52 00	\$38 60	88-10	9-15	1	1	Taxation,	9	\$720 00
Arlington, .	4	21	12	7	137 70	49 45	220	10	1	3	Taxation,	10	1,800 00
Ashby, .	1	13	2	1	60 00	29 60	57-2.	6-7	2	1	-	-	-
Ashland, .	4	13	4	3	90 00	34 16	112-10	8-16	1	2	Taxation,	10	900 00
Ayer, .	1	10	5	3	100 00	36 66	87-6	8-7	1	1	Taxation,	10	1,000 00
Bedford, .	1	7	1	1	32 00	36 40	57	9-5	1	1	Taxation,	9-5	456 00
Belmont, .	2	10	2	2	87 50	45 25	87-15	9-15	1	2	Taxation,	9-15	1,550 00
BillERICA, .	1	14	5	4	57 50	34 20	98-17	9-18	1	1	-	-	-
Boxborough, .	1	7	2	1	33 00	30 00	30	7-10	1	1	-	-	-
Burlington, .	-	6	1	1	-	33 66	44-5	7-8	1	1	Taxation,	3-10	180 00
Cambridge, .	21	231	141	121	173 86	61 11	330	10	2	19	Taxation,	10	2,800 00
Carlisle, .	1	8	2	1	-	27 60	40	8	1	1	-	8	2,800 00
Chelmsford, .	3	21	6	3	80 00	32 00	127-10	8	2	65	Taxation,	8-10	695 00
Concord, .	2	23	3	3	138 46	50 00	126-15	9-15	1	3	Taxation,	9-15	646 25
Dracut, .	1	16	4	4	32 00	32 00	82-10	7-10	1	3	-	-	1,800 00
Dunstable, .	1	8	2	1	-	25 51	41-4	8-5	1	1	-	-	-
Everett, .	2	28	4	3	126 25	46 57	239-15	9-17	1	3	Taxation,	10	1,325 00
Framingham, .	2	37	16	15	135 00	45 00	390	9	2	5	Taxation,	9-15	700 00
Groton, .	2	12	3	2	70 00	37 03	105-5	8-15	1	2	Taxation,	10	1,000 00
Holliston, .	4	24	9	8	64 89	35 52	120-5	8-4	1	2	Taxation,	9-10	1,050 00
Hopkinton, .	2	27	4	1	94 00	36 06	171-10	8	1	2	Taxation,	10	940 00
Hudson, .	2	28	9	1	116 66	37 00	154-5	8	1	2	Taxation,	9	1,200 00

SCHOOL RETURNS.

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Lexington, .	1	11	5	-	150 00	50 00	110	10	-	1	2	57	Taxation,	9	1,500 00
Lincoln, .	2	5	1	1	48 50	35 00	45-10	9-2	-	1	1	37	Taxation,	9-10	675 00
Littleton, .	1	9	3	1	78 33	37 48	50-15	7-5	-	1	2	35	Part tax,	9	705 00
Lowell, .	15	169	64	37	180 60	64 76	402-18	9-3	-	1	13	494	Taxation,	10-4	1,740 00
Malden, .	2	58	26	19	185 00	53 57	500	10	-	1	5	217	Taxation,	10	2,200 00
Marlborough, .	2	48	8	6	144 44	42 82	396	9	-	1	3	100	Taxation,	9	1,650 00
Maynard, .	1	10	-	-	111 11	38 40	80-5	8-18	-	1	2	84	Taxation,	9	1,000 00
Medford, .	8	31	12	10	134 00	48 79	305-8	9-5	-	1	5	115	Taxation,	9-20	2,200 00
Melrose, .	3	27	16	11	170 00	51 10	244	10-3	-	1	3	130	Taxation,	10	1,700 00
Natick, .	3	44	18	12	117 37	39 08	326	9-3	-	1	4	138	Taxation,	10	1,100 00
Newton, .	15	99	43	39	193 85	65 77	860	10	-	1	13	431	Taxation,	10	2,800 00
North Reading, .	3	9	6	6	52 00	27 60	53-15	8-19	-	1	1	35	Taxation,	9	468 00
Pepperell, .	4	14	5	4	62 50	30 33	89-15	8-3	-	1	1	51	Taxation,	10	800 00
Reading, .	2	20	11	9	126 30	39 25	142-10	9-10	-	1	3	123	Taxation,	9-10	1,200 00
Sherborn, .	-	9	2	1	-	34 33	46-5	7-14	1	1*	2	68	Part tax,	9	1,000 00
Shirley, .	3	13	4	2	52 00	32 00	56	8	-	-	-	-	-	-	-
Somerville, .	9	111	42	42	172 50	59 29	1,040	10	-	1	9	520	Taxation,	10	2,400 00
Stoneham, .	2	29	11	10	170 00	43 00	205-13	9-7	-	1	3	84	Taxation,	10	1,700 00
Stow, .	1	9	3	2	90 82	35 60	54	9	-	1	1	25	Not by tax,	9	817 42
Sudbury, .	-	12	9	8	-	37 92	52-5	7-8	1	-	-	-	-	-	-
Tewksbury, .	-	11	2	2	-	35 00	63-18	9-3	-	-	-	-	-	-	-
Townsend, .	2	16	-	-	33 00	29 00	115	7-12	-	1	-	34	Taxation,	10	600 00
Tyngsborough, .	1	11	3	2	50 00	27 54	49-10	8-14	-	-	-	-	-	-	-
Wakefield, .	3	25	7	3	133 33	44 48	230	10	-	1	3	111	Taxation,	10	1,600 00
Waltham, .	7	60	32	25	120 70	55 16	513	9-9	-	1	6	251	Taxation,	10	1,800 00
Watertown, .	4	34	8	7	176 70	51 80	250-11	9-13	-	1	3	102	Taxation,	9-17	2,000 00
Wayland, .	2	12	4	4	80 00	35 55	99	9	-	-	-	-	-	-	-
Westford, .	-	18	4	3	-	32 00	116	8-5	-	-	-	-	-	-	-
Weston, .	1	10	2	2	133 33	45 61	72	9	-	1	1	44	Taxation,	9	1,200 00
Wilmington, .	2	6	5	4	48 00	31 00	47-5	7-17	-	1	1	28	Taxation,	8-15	432 00
Winchester, .	2	23	12	5	166 75	43 57	115	9-10	-	1	3	79	Taxation,	9-10	1,805 00
Woburn, .	4	42	6	5	130 00	48 95	415	9	1	1	5	140	Taxation,	10	2,000 00
Totals, .	165	1,581	616	466	\$132 57	\$49 93	9,959-7.	8-17	7	45	147	5,041	-	405-6	\$59,654 67

* United with Sawin Academy.

MIDDLESEX COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes for Schools, including wages of teachers, board, fuel, care of fires and school-rooms, for the school-year 1886-87.	Expense of supervision by school committee.	Salary of Superintendent of Public Schools.	Expense of Printing reports, etc.	Expense of sundries, — books, stationery, etc.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.	Amount of voluntary contributions for Public Schools.
Acton,	\$4,099 69	\$125 00	—	\$19 50	\$578 06	—	—	\$313 53	\$5,135 78	—
Arlington,	18,279 40	—	—	—	2,158 54	—	\$1,246 89	245 50	21,930 33	—
Ashby,	1,800 00	—	\$100 00	12 00	207 14	—	778 89	51 32	2,949 35	—
Ashland,	5,000 00	125 00	—	—	500 00	—	—	300 00	5,925 00	—
Ayer,	4,200 00	150 00	—	16 00	714 66	—	—	227 78	5,308 44	—
Bedford,	2,500 00	150 00	—	30 00	300 00	—	—	25 00	3,005 00	—
Belmont,	7,329 30	240 00	—	30 00	387 10	—	115 48	490 65	8,592 53	—
Billerica,	3,800 00	180 00	—	49 00	259 42	—	—	394 42	4,682 84	—
Boxborough,	686 82	—	38 00	10 00	99 81	—	—	7 00	841 63	—
Burlington,	1,200 00	80 00	—	16 00	158 39	—	—	3 90	1,458 29	—
Cambridge,	179,373 00	4,225 00	2,800 00	350 00	10,975 52	\$22,642 10	12,990 58	30,204 69	263,560 89	\$305 00
Carlisle,	800 00	35 00	—	10 00	158 14	—	—	26 00	1,029 14	—
Chelmsford,	5,000 00	10 00	200 00	24 00	724 30	—	2,489 76	163 87	8,611 93	—
Concord,	11,650 00	50 00	250 00	23 02	901 73	11,391 00	—	571 47	24,837 22	—
Dracut,	3,000 00	—	150 00	30 00	100 00	—	30 00	278 00	3,588 00	—
Dunstable,	800 00	45 00	—	8 00	79 71	—	—	17 49	950 20	—
Everett,	15,500 00	200 00	—	15 00	1,800 00	7,000 00	785 00	700 00	26,000 00	—
Frammingham,	20,000 00	—	1,000 00	25 00	1,500 00	5,000 00	—	1,350 00	28,875 00	—
Groton,	5,200 00	200 00	—	41 25	314 02	—	—	90 98	5,846 25	—
Holliston,	5,800 00	65 00	—	53 00	911 56	—	400 00	317 67	7,547 23	—
Hopkinton,	8,100 00	300 00	—	30 00	200 00	750 00	1,325 00	300 00	11,005 00	—
Hudson,	8,600 00	300 00	—	25 00	846 43	—	—	496 29	10,267 72	—
Lexington,	10,287 56	325 00	240 00	—	—	—	—	—	10,852 56	—

SCHOOL RETURNS.

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Lincoln, . . .	2,500 00	95 00	-	25 00	162 00	-	175 00	310 00	3,267 00	-
Littleton, . .	2,400 00	22 40	75 00	25 00	534 09	-	-	108 31	3,164 80	-
Lowell, . . .	158,119 15	-	2,600 00	707 07	15,148 82	9,994 31	9,228 00	15,915 70	211,713 05	-
Malden, . . .	42,267 07	-	2,250 00	163 72	4,372 57	45,464 03	1,499 42	2,442 47	98,459 28	-
Marlborough, .	23,078 30	300 00	1,700 00	100 00	1,936 81	-	190 00	712 28	28,017 39	-
Maynard, . . .	6,000 00	232 30	-	-	770 80	-	-	-	7,003 10	-
Medford, . . .	28,258 19	400 00	-	12 00	2,200 00	11,500 00	2,242 43	3,329 69	47,942 31	-
Melrose, . . .	18,000 00	450 00	-	60 00	1,484 58	18,800 00	1,500 00	500 00	40,794 58	-
Natick, . . .	22,000 00	475 00	-	-	1,448 01	-	630 00	852 50	25,405 51	-
Newton, . . .	94,724 21	300 00	2,800 00	160 00	14,388 01	22,300 00	3,765 90	1,916 99	140,355 11	-
North Reading, .	1,800 00	110 00	-	15 00	134 91	-	-	123 36	2,183 27	26 00
Pepperell, . .	4,600 00	-	250 00	21 00	327 35	-	-	349 86	5,548 21	-
Reading, . . .	8,300 00	375 00	-	50 00	1,092 18	7,850 00	-	607 28	18,274 46	-
Sherborn, . . .	2,125 00	160 75	-	25 00	268 45	2,824 89	-	267 16	5,671 25	-
Shirley, . . .	2,200 00	126 75	-	15 00	280 82	-	-	72 08	2,694 65	-
Somerville, . .	89,891 52	-	2,000 00	-	4,986 18	17,000 00	-	8,732 49	122,610 19	-
Stoneham, . .	13,900 00	400 00	-	5 00	1,308 79	-	-	991 21	16,605 00	-
Stow, . . .	2,000 00	100 00	-	25 50	364 43	-	-	114 04	2,603 97	-
Sudbury, . . .	2,000 00	210 90	-	15 00	328 70	-	-	45 90	2,600 50	-
Tewksbury, . .	2,500 00	150 00	-	-	571 93	-	190 90	442 10	3,854 93	-
Townsend, . .	3,500 00	-	150 00	15 00	500 00	-	-	200 00	4,365 00	-
Tyngsborough, .	1,150 00	5 00	60 00	8 75	304 86	-	25 00	25 00	1,588 61	-
Wakefield, . .	16,500 00	382 25	-	50 40	1,352 67	339 94	337 75	570 49	19,533 50	-
Waltham, . . .	47,280 38	-	2,000 00	18 00	3,487 62	7,745 36	3,700 00	1,200 00	63,413 36	-
Watertown, . .	21,200 00	300 00	500 00	-	1,715 48	-	-	2,147 51	25,862 99	-
Wayland, . . .	4,500 00	150 00	-	20 00	500 00	-	225 00	51 38	5,446 38	-
Westford, . . .	4,000 00	-	150 00	43 60	407 50	-	65 60	102 19	4,768 94	-
Weston, . . .	5,200 00	150 00	-	-	350 00	-	-	-	5,700 00	-
Wilmington, . .	1,750 00	95 00	-	11 00	371 97	-	112 38	-	2,340 35	-
Winchester, . .	17,500 00	300 00	-	-	1,592 42	-	10,014 33	1,000 00	30,406 75	-
Woburn, . . .	29,760 41	-	1,500 00	103 44	1,621 46	-	-	3,297 49	36,282 80	-
Totals, . . .	\$1,002,010 00	\$12,095 35	\$20,813 00	\$2,511 25	\$88,187 94	\$190,601 63	\$54,063 31	\$83,003 04	\$1,451,277 57	\$391 00

MIDDLESEX COUNTY — CONCLUDED.

[illegible]

SCHOOL RETURNS.

xlix

Littleton,	3,500 00	210 00	147 42	1	140	—	—	1,200 00	10	3,000	—	—	212 82	—
Lowell,	—	—	—	—	—	—	—	—	4	750	7,000 00	—	—	—
Malden,	2,660 75	153 04	—	—	—	—	—	—	2	—	—	—	—	59 17
Marlborough,	—	—	—	—	—	—	—	—	—	—	—	—	160 80	—
Maynard,	—	—	—	—	—	—	—	—	2	40	2,500 00	—	184 58	—
Medford,	—	—	—	—	—	—	—	—	—	—	—	—	110 99	—
Melrose,	—	—	—	—	—	—	—	—	1	12	100 00	—	76 21	24 00
Natick,	—	—	—	—	—	—	—	—	—	—	—	—	108 77	—
Newton,	—	—	2,081 23	3	262	—	—	52,000 00	12	145	11,906 00	—	—	—
North Reading,	—	—	140 40	—	—	—	—	—	—	—	—	—	209 40	4 06
Pepperell,	—	—	—	—	—	—	—	—	—	—	—	—	179 74	37 07
Reading,	—	—	—	—	—	—	—	—	2	15	285 00	—	187 40	—
Sherborn,	19,910 00	1,048 24	95 45	1	68	—	—	93 50	—	—	—	—	213 50	—
Shirley,	5,430 85	200 00	99 90	—	—	—	—	—	—	—	—	—	216 52	—
Somerville,	—	—	—	—	—	—	—	—	1	*620	—	—	—	—
Stoneham,	—	—	—	—	—	—	—	—	1	45	695 00	—	60 83	13 20
Stow,	15,740 00	914 00	136 19	—	—	—	—	—	—	—	—	—	212 15	—
Sudbury,	300 00	18 00	151 20	—	—	—	—	—	—	—	—	—	163 03	—
Tewksbury,	—	—	—	—	—	—	—	—	—	—	—	—	167 19	—
Townsend,	—	—	195 00	—	—	—	—	—	—	—	—	—	222 63	—
Tyngsborough,	2,407 47	122 11	73 98	—	—	—	—	—	—	—	—	—	306 51	—
Wakefield,	—	—	—	—	—	—	—	—	1	13	225 00	—	84 60	—
Waltham,	—	—	—	1	70	—	—	4,200 00	1	12	325 00	—	—	—
Watertown,	—	—	—	—	—	—	—	—	1	10	300 00	—	74 12	—
Wayland,	200 00	12 00	347 46	—	—	—	—	—	—	—	—	—	180 48	23 00
Westford,	31,233 86	2,056 06	160 15	1	68	—	—	599 00	—	—	—	—	177 39	—
Weston,	—	—	—	—	—	—	—	—	—	—	—	—	164 77	20 08
Wilmington,	—	—	—	—	—	—	—	—	—	—	—	—	211 21	—
Winchester,	—	—	—	—	—	—	—	—	—	—	—	—	41 63	—
Woburn,	12,000 00	600 00	—	1	—	—	—	—	2	500	—	—	173 23	—
Totals,	\$175,228 93	\$10,228 81	\$5,370 88	12	830	—	—	\$85,744 50	63	7,117	\$75,491 00	—	\$8,442 33	\$419 07

* Parochial.

BOARD OF EDUCATION.

NANTUCKET COUNTY.

TOWNS.	Population—State Census, 1885.	Valuation—1886.	No. of Public Schools.	No. of persons in town May 1, 1886, between 5 and 15 years of age.	No. of persons in town May 1, 1886, between 8 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school-year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Nantucket,	3,142	\$2,791,741	12	560	460	400	—	20	292	363	330	.91	13

NORFOLK COUNTY.

Bellingham,	1,198	\$582,355	8	217	124	243	4	11	124	183	166	.91	8
Braintree, .	4,040	2,901,900	19	705	433	817	5	64	450	629	565	.90	20
Brookline, .	9,196	33,434,400	38	1,730	1,023	1,759	—	199	1,023	1,383	1,286	.93	46
Canton, .	4,380	3,422,382	15	725	431	543	3	39	296	420	393	.94	16
Cohasset, .	2,216	3,202,102	13	359	238	452	2	43	238	368	332	.90	14
Dedham, .	6,641	5,295,783	35	1,182	804	1,337	—	100	774	1,100	1,027	.93	37
Dover, .	664	747,634	4	83	72	102	1	—	72	78	67	.86	4
Foxborough, .	2,814	1,409,708	11	410	271	472	—	64	294	387	357	.92	12
Franklin, .	3,983	2,007,695	15	869	532	849	7	63	530	678	583	.86	18
Holbrook, .	2,334	1,052,905	11	423	257	463	—	40	323	454	393	.87	14
Hyde Park, .	8,376	5,627,688	35	1,704	1,278	1,945	4	64	1,257	1,552	1,409	.91	41
Medfield, .	1,594	1,162,436	5	180	111	214	—	28	101	180	170	.94	7
Medway, .	2,777	1,216,710	14	435	248	597	8	43	358	474	431	.91	15
Millis, .	683	434,410	4	107	73	150	1	13	72	101	83	.82	4
Milton, .	3,555	12,168,918	15	621	360	701	3	78	414	543	504	.93	17
Needham, .	2,586	1,975,603	14	516	306	619	13	46	330	493	436	.88	14
Norfolk, .	825	420,117	6	181	104	204	7	15	119	157	139	.89	6

SCHOOL RETURNS.

li

Norwood, .	2,921	2,112,575	12	503	230	590	-	36	363	498	445	.89	12
Quincy, .	12,145	8,819,066	56	3,088	2,145	2,816	8	112	1,748	2,422	2,265	.94	58
Randolph, .	3,807	2,002,380	16	685	450	724	12	81	425	648	591	.91	18
Sharon, .	1,328	1,123,161	7	227	145	244	2	15	144	184	166	.90	7
Stoughton, .	5,173	2,288,900	18	988	635	797	11	70	450	653	598	.92	26
Walpole, .	2,443	1,701,430	13	414	268	507	3	54	287	373	336	.90	13
Wellesley, .	3,013	4,681,598	11	347	163	465	4	50	240	368	335	.91	16
Weymouth, .	10,740	5,732,410	51	1,860	1,140	2,210	-	201	1,200	1,951	1,735	.89	53
Wrentham, .	2,710	1,342,348	15	463	281	508	4	43	293	389	350	.90	15
Totals,	102,142	\$106,866,614	461	19,022	12,122	20,328	102	1,572	11,925	16,666	15,162	.91	511

NANTUCKET COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	Av'g wages per month of male teachers in Public Schools.	Av'g wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than six months each.	HIGH SCHOOLS						Salary of Principal.
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Length.		
														Months.	Days.	
Nantucket.	1	12	2	-	\$100 00	\$28 25	116-6	9-8	-	1	2	50	Taxation,	10	\$1,000 00	

NORFOLK COUNTY — CONTINUED.

Bellingham,	1	8	1	1	\$40 00	\$32 00	61-5	7-12	—	—	—	—	Taxation,	—	—
Braintree,	6	19	7	2	75 00	30 94	189-14	9-19	—	1	2	101	Taxation,	9-17	\$1,200 00
Brookline,	5	41	13	13	202 00	65 00	344-15	9-10	—	1	5	124	Taxation,	9-10	2,700 00
Canton,	5	18	6	6	107 50	42 92	158	10	—	1	2	48	Taxation,	10	1,200 00
Cohasset,	2	12	—	—	82 50	34 50	130	10	—	1	2	65	Taxation,	10	1,200 00
Dedham,	7	30	12	12	121 66	45 00	350	10	—	1	4	113	Taxation,	10	1,800 00
Dover,	1	6	4	3	40 00	39 00	35-15	8-15	—	—	—	—	—	—	—
Foxborough,	1	11	3	—	111 11	39 23	99	9	—	1	2	59	Taxation,	9	1,000 00
Franklin,	3	18	4	3	44 00	40 80	129-10	8-12	—	1	2	69	Taxation,	9-10	950 00
Holbrook,	1	23	11	10	106 00	36 00	110	10	—	1	2	85	Taxation,	10	1,100 00
Hyde Park,	6	40	16	13	121 62	44 00	343-4	9-16	—	1	4	163	Taxation,	9-16	1,800 00
Medfield,	1	8	—	—	105 24	38 98	47-10	9-10	—	—	—	—	—	—	—
Medway,	3	16	2	2	66 00	33 54	119	8	—	1	2	50	Taxation,	10	1,000 00
Millis,	—	8	4	4	—	33 37	35-5	8-8	—	—	—	12	Taxation,	—	—
Milton,	5	12	5	5	132 00	53 00	150	10	—	1	2	69	Taxation,	10	1,800 00
Needham,	2	14	3	1	84 00	44 66	138-15	9-18	—	1	1	77	Taxation,	10	1,200 00
Norfolk,	—	7	4	—	—	32 28	43	7-3	1	—	—	—	—	—	—

Norwood,	.	1	12	8	8	122 00	42 88	114	9-10	-	1	2	49	Taxation,	9-10	1,159 00
Quincy, .	.	6	52	15	12	106 67	45 24	560	10	-	1	3	177	Taxation,	10	1,400 00
Randolph,	.	3	15	5	5	122 81	39 11	152	9-10	-	1	3	85	Part tax,	9-10	1,500 00
Sharon, .	.	1	8	1	1	78 95	33 00	62	8 17	-	1	1	48	Taxation,	9-10	750 00
Stoughton,	.	7	19	11	8	77 57	34 50	162	9	-	1	2	57	Taxation,	9	1,050 00
Walpole,	.	4	13	7	3	62 50	36 00	126	10	-	1	2	53	Taxation,	10	1,000 00
Wellesley,	.	2	18	6	5	150 00	48 00	99-16	9-7	-	1	3	54	Taxation,	10	1,500 00
Weymouth,	.	7	46	7	6	98 57	35 61	522-1	9-17	-	2	5	179	Taxation,	9-17	1,200 00
Wrentham,	.	5	14	2	1	70 00	35 33	130-18	8-13	-	1	1	31	Taxation,	9	1,200 00
Totals,	.	85	488	157	124	\$101 72	\$41 95	4,413-8	9-5	1	22	52	1,768	-	204	\$28,429 00

NANTUCKET COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes for Schools, including wages of teachers, board, fuel, care of fires and school-rooms, for the school-year 1886-87.	Expense of supervision by school committee.	Salary of Superintendent of Public Schools.	Expense of Printing reports, etc.	Expense of sundries, books, stationery, etc.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.	Amount of voluntary contributions for Public Schools.
Nantucket,	\$4,902 20	\$100 00	—	\$21 00	\$356 69	—	—	\$85 00	\$5,464 89	—

NORFOLK COUNTY — CONTINUED.

Bellingham,	\$1,800 00	—	\$100 00	\$25 00	\$151 50	—	—	\$40 00	\$2,116 50	—
Braintree, .	8,400 00	—	1,175 00	45 00	878 74	—	—	910 78	11,434 58	—
Brookline,	44,730 00	\$500 00	2,500 00	30 00	1,927 00	\$11,364 00	—	750 00	61,801 00	—
Canton, .	10,564 00	—	1,200 00	—	880 73	—	—	441 59	13,086 32	—
Cohasset, .	5,700 00	50 00	—	25 00	500 00	—	\$500 00	500 00	7,275 00	—
Dedham, .	28,844 23	—	1,600 00	30 00	1,747 02	—	500 00	1,071 10	29,792 35	—
Dover, .	1,600 00	—	70 00	—	—	5,000 00	—	—	6,670 00	—
Foxborough,	5,200 00	275 00	—	30 00	700 00	2,200 00	150 00	—	8,555 00	—
Franklin, .	6,500 00	475 00	—	33 10	666 29	4,546 05	1,686 78	535 83	14,443 05	—
Holbrook,	7,000 00	—	—	—	472 83	—	—	302 17	7,775 00	—
Hyde Park,	26,600 00	—	1,800 00	35 50	2,000 00	—	1,350 00	3,600 00	35,385 50	—
Medfield, .	2,200 00	110 00	—	10 00	379 96	—	35 25	553 64	3,288 85	—
Medway, .	5,000 00	202 09	—	25 00	781 35	—	—	508 26	6,516 70	—
Millis, .	1,396 83	—	70 00	5 00	86 73	—	—	19 19	1,577 75	—
Milton, .	15,442 62	—	1,270 00	79 20	2,014 07	9,907 99	—	541 53	29,255 41	—
Needham, .	8,100 00	255 00	—	12 75	492 00	—	491 68	438 24	9,789 67	—
Norfolk, .	1,250 00	95 50	—	12 00	237 00	—	70 26	58 99	1,723 75	—

SCHOOL RETURNS.

IV

Norwood, .	9,300 00	180 00	-	1,700 00	20,000 00	339 69	67 77	11,587 46	-
Quincy, .	35,163 87	-	23 00	7,208 77	34,995 76	930 00	1,939 43	81,927 45	-
Randolph, .	10,000 00	325 00	-	868 57	-	294 66	270 18	11,758 41	-
Sharon, .	2,400 00	43 00	36 00	233 68	-	-	114 19	2,946 87	-
Stoughton, .	8,710 59	563 06	50 00	1,477 89	-	-	457 54	11,259 08	-
Walpole, .	8,000 00	-	-	1,000 00	1,600 00	-	400 00	11,525 00	-
Wellesley, .	10,467 40	225 00	-	816 21	-	-	669 67	12,178 28	-
Weymouth, .	26,389 08	298 40	82 89	3,145 89	2,254 62	-	2,625 25	36,641 13	-
Wrentham, .	6,000 00	284 00	19 00	473 48	-	-	169 78	6,946 26	-
Totals,	\$296,758 62	\$3,881 05	\$608 44	\$30,839 71	\$91,868 42	\$6,348 32	\$16,985 13	\$437,256 37	\$50 00

NANTUCKET COUNTY — CONCLUDED.

TOWNS.	Amount of local funds, the income of which can be appropriated only for the support of Schools and Acad- emies.	Income of local funds.	Income of surplus rev- enue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 25, 1887.	How much of said fund was used for appa- ratus and books of reference.
				No. of Acad- emies.	Whole No. at- tending for the year.	Amount of tu- tion paid.	No. of Private Schools.	Whole No. at- tending for the year.	Estimated amount of tuition.		
Nantucket,	-	-	-	1	80	\$640 00	1	12	\$150 00	\$187 94	\$60 00

NORFOLK COUNTY — CONCLUDED.

Bellingham,	-	-	\$485 13	1	84	-	-	-	-	\$213 16	-
Braintree,	\$6,700 00	\$250 00	539 80	1	-	\$1,350 00	-	-	-	197 34	-
Brookline,	-	-	-	-	-	-	9	150	-	-	-
Canton,	-	-	571 09	-	-	-	-	-	-	57 48	-
Cohasset,	1,000 00	45 50	203 00	-	-	-	-	-	-	23 30	-
Dedham,	-	-	300 00	-	-	-	3	35	\$1,600 00	76 21	\$55 00
Dover,	-	-	-	-	-	-	-	-	-	205 77	-
Foxborough,	-	-	347 57	-	-	-	-	-	-	176 25	-
Franklin,	-	-	373 77	1	23	391 00	1	27	270 00	203 44	-
Holbrook,	-	-	390 17	-	-	-	1	21	-	179 88	-
Hyde Park,	-	-	-	-	-	-	-	-	380 00	107 83	63 00
Medfield,	3,760 20	173 76	-	-	-	-	-	-	-	163 63	53 00
Medway,	-	-	791 39	-	-	-	-	-	-	177 26	9 95
Milis,	100 00	6 00	-	-	-	-	-	-	-	307 25	-
Milton,	-	-	-	1	41	3,600 00	-	-	-	-	-
Needham,	1,000 00	-	306 17	-	-	-	-	-	-	180 42	-
Norfolk,	-	-	55 88	-	-	-	-	-	-	311 21	-

Norwood,	.	-	-	-	-	-	-	1	8	200 00	183 64	-
Quincy, .	.	60,000 00	2,600 00	-	1	-	-	1	49	2,000 00	162 22	-
Randolph,	.	12,700 00	846 50	-	-	-	-	-	-	-	194 31	-
Sharon, .	.	2,360 00	141 60	-	-	-	-	-	-	-	165 24	-
Stoughton,	.	-	-	-	-	-	-	2	275	350 00	215 46	-
Walpole,	.	-	-	-	-	-	-	-	-	-	180 35	-
Wellesley,	.	-	-	-	-	-	-	2	92	6,600 00	25 45	-
Weymouth,	.	6,000 00	275 00	-	-	-	-	2	30	900 00	133 81	-
Wrentham,	.	1,818 26	109 08	-	-	-	-	-	-	-	178 67	-
Totals,	.	\$95,438 46	\$4,447 44	\$6,860 42	4	148	\$5,341 00	22	687	\$12,300 00	\$4,019 58	\$180 95

PLYMOUTH COUNTY.

TOWNS.	Population—State Census, 1885.	Valuation—1886.	No. of Public Schools.	No. of persons in town May 1, 1886, between 5 and 15 years of age.	No. of persons in town May 1, 1886, between 16 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school-year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Abington, .	3,699	\$1,921,377	17	575	344	682	2	115	362	642	584	.91	20
Bridgewater, .	3,827	2,133,765	19	492	318	663	13	75	358	537	457	.85	21
Brockton, .	20,783	14,051,591	68	3,119	2,027	4,222	—	315	2,377	3,305	2,767	.84	72
Carver, .	1,091	581,730	8	175	123	199	7	15	122	148	131	.89	8
Duxbury, .	1,924	1,113,864	10	283	183	327	4	49	183	275	237	.86	11
East Bridgewater, .	2,812	1,530,384	15	444	279	521	1	28	334	431	392	.91	16
Halifax, .	530	244,731	4	107	62	110	1	3	61	88	72	.82	4
Hanover, .	1,966	1,104,167	9	330	239	367	—	3	258	304	265	.87	10
Hanson, .	1,227	563,212	7	216	131	250	3	13	131	183	154	.84	7
Hingham, .	4,375	3,406,120	16	634	405	772	7	80	453	670	606	.90	18
Hull, .	451	2,151,593	2	78	44	93	—	5	58	61	51	.84	2
Kingston, .	1,570	1,672,128	6	196	125	261	4	42	163	234	213	.91	7
Lakeville, .	980	436,687	9	165	107	175	5	11	105	142	121	.85	9
Marion, .	965	757,520	7	164	99	179	2	15	98	146	129	.88	7
Marshfield, .	1,649	1,043,120	9	230	146	255	1	26	144	201	179	.89	9
Mattapoisett, .	1,215	1,459,274	6	171	131	196	—	25	131	179	154	.86	7
Middleborough, .	5,163	2,698,372	23	810	491	922	4	76	583	761	690	.91	28
Pembroke, .	1,313	625,148	8	201	128	227	3	10	144	178	151	.85	8
Plymouth, .	7,239	4,915,900	33	1,224	790	1,452	—	111	790	1,207	1,048	.87	36
Plympton, .	600	289,200	3	84	49	90	—	10	49	75	72	.96	3
Rochester, .	1,021	471,160	7	167	106	196	1	18	106	153	130	.85	7
Rockland, .	4,785	2,381,067	20	835	509	1,083	2	87	628	897	812	.90	22
Scituate, .	2,350	1,809,741	13	500	345	492	2	49	334	407	372	.91	15

South Scituate, . . .	1,589	906,579	11	241	155	251	6	8	153	235	200	.85	11
Wareham, . . .	3,254	1,465,887	17	637	372	681	20	51	374	532	474	.89	19
West Bridgewater, . .	1,707	947,060	10	309	177	272	7	3	168	227	207	.91	10
Whitman, . . .	3,595	2,747,320	12	638	397	726	5	53	411	619	573	.93	14
Totals, . . .	81,680	\$53,428,697	369	13,025	8,282	15,664	100	1,296	9,078	12,837	11,241	.88	401

SUFFOLK COUNTY.

Boston, . . .	390,393	\$710,621,335	532	70,090	42,054	65,000	40	5,260	39,963	58,266	52,166	.90	1,264
Chelsea, . . .	25,709	18,806,662	82	4,804	2,892	4,894	-	527	2,738	4,105	3,778	.92	89
Revere, . . .	3,637	3,646,510	16	733	528	757	2	25	568	612	526	.86	16
Winthrop, . . .	1,370	2,450,065	4	208	113	291	-	27	198	234	208	.89	5
Totals, . . .	421,109	\$735,524,572	634	75,835	45,587	70,942	42	5,839	43,467	63,217	56,678	.90	1,374

BOARD OF EDUCATION.

PLYMOUTH COUNTY.—CONTINUED.

TOWNS	Whole No. of different male teachers in school-year.		Whole No. of different female teachers in school-year.		No. of teachers who have attended Normal Schools.		No. of teachers who have graduated from Normal Schools.		Av'ge wages per month of male teachers in Public Schools.		Av'ge wages per month of female teachers in Public Schools.		Aggregate of months all the Public Schools have been kept during the school-year.		Average No. of months the Public Schools have been kept for the entire year.		No. of Schools kept less than six months each.		HIGH SCHOOLS.					Salary of Principal.
	male teachers in school-year.		female teachers in school-year.		No. of teachers who have attended Normal Schools.		No. of teachers who have graduated from Normal Schools.		Av'ge wages per month of male teachers in Public Schools.		Av'ge wages per month of female teachers in Public Schools.		Aggregate of months all the Public Schools have been kept during the school-year.		Average No. of months the Public Schools have been kept for the entire year.		No. of Schools kept less than six months each.		No. of High Schools.	No. of teachers.	No. of Pupils.	How supported.	Length. Months. Days.	
Abington, .	3		21		4		1		\$86 33	\$35 35	155-10	9-3	1		9-3		1		2	4	97	Taxation,	10	\$1,000 00
Bridgewater, .	7		26		19		19		80 00	33 13	150-14	8-16			8-16				1	3	90	Taxation,	9-10	1,000 00
Brockton, .	8		67		32		27		100 50	43 63	710	10			10				1	4	174	Taxation,	10	1,100 00
Carver, .	2		7		1		1		30 05	29 30	60	7-10			7-10				1	1		-	-	1,800 00
Duxbury, .	2		10		2		1		67 50	32 00	94-10	9-9			9-9				1	2	48	Part tax,	10	1,000 00
East Bridgewater, .	1		23		9		1		105 00	35 50	136	9			9				1	2	67	Taxation,	10	1,050 00
Halifax, .	1		4		1		1		-	26 83	32-14	8-3			8-3				1	1		-	-	-
Hanover, .	1		10		3		2		85 00	30 07	87-15	9-15			9-15				1	2	52	Taxation,	10	850 00
Hanson, .	1		12		7		4		-	30 86	60-17	8-13			8-13				1	1		-	-	-
Hingham, .	7		14		8		6		96 00	43 07	160	10			10				1	3	108	Taxation,	10	1,600 00
Hull, .	2		1		-		-		75 00	36 00	18	9			9				1	1		-	-	-
Kingston, .	1		8		4		2		108 08	43 82	55-10	9-5			9-5				1	2	55	Taxation,	9-5	831 03
Lakeville, .	1		12		6		4		27 00	28 59	72	8			8				1	1		-	-	-
Marion, .	3		7		4		1		39 00	29 00	57-15	8-5			8-5				1	1		-	-	-
Marshfield, .	3		11		4		3		36 00	31 00	73-14	8-15			8-15				1	1		-	-	-
Mattapoisett, .	1		6		5		5		70 00	29 00	55	9			9				1	1	30	Part tax,	10	700 00
Middleborough, .	5		42		13		10		71 78	35 00	212	9-4			9-4				1	3	72	Taxation,	10	1,140 00
Pembroke, .	1		9		2		1		36 00	27 71	66	8-5			8-5				1	1		-	-	-
Plymouth, .	6		33		10		8		92 00	37 67	330	10			10				1	5	158	Taxation,	10	1,400 00
Plymouth, .	1		6		2		2		-	94 50	26-6	8-18			8-18				1	1		-	-	-
Rochester, .	5		10		3		-		32 00	31 70	63	9			9				1	1		-	-	-
Rockland, .	8		24		6		4		69 20	38 62	184-10	9-4			9-4				1	3	59	Taxation,	10	1,260 00

SCHOOL RETURNS.

Scituate, .	1	18	9	8	105	26	27	00	118	9	-	1	2	71	Taxation,	9-10	1,000	00
South Scituate, .	1	16	7	6	36	00	29	33	92-5	9-4	-	-	-	-	-	-	-	-
Wareham, .	2	24	3	-	82	89	31	95	134-10	7-4	-	1	2	61	Taxation,	9-10	1,100	00
West Bridgewater, .	-	11	2	-	-	-	37	63	80	8	-	-	-	-	-	-	-	-
Whitman, .	1	15	4	2	120	00	38	00	114	9-10	-	1	2	98	Taxation,	10	1,200	00
Totals, .	72	447	169	116	\$74	27	\$36	35	3,400-10	8-18	-	16	40	1,240	-	147-15	\$18,031	03

SUFFOLK COUNTY — CONTINUED.

Boston, .	152	1,112	800	800	\$254 26	\$72 95	5,120	10-1	-	11	106	2,561	Taxation, 10	{ 9-15 - 9-8	\$22,680 00
Chelsea,	4	85	20	18	183 33	66 82	776	9-15	-	1	7	228	Taxation, -	9-15	6,336 00
Revere, .	2	19	7	1	87 50	42 85	152	10	-	-	-	-	-	-	5,760 00
Winthrop, .	2	5	3	1	82 60	40 07	37-2	9-8	-	1	1	64	Taxation, 9-8	9-8	2,200 00
Totals. .	160	1,221	830	820	\$248 18	\$71 92	6,085-2	9-16	-	13	114	2,853	-	29-3	\$37,761 50

PLYMOUTH COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes for Schools, including wages of teachers, board, fuel, care of fires and school-rooms, for the school-year 1886-87.	Expense of supervision by school committee.	Salary of Superintendent of Public Schools.	Expense of Printing reports, etc.	Expense of sundries,—books, stationery, etc.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.	Amount of voluntary contributions for Public Schools.
Abington, . .	\$9,000 00	\$330 00	—	\$50 00	\$805 30	—	—	\$1,663 00	\$11,848 30	—
Bridgewater, . .	8,600 00	500 37	—	8 10	763 78	—	\$486 58	409 11	10,767 94	—
Brockton, . .	41,164 18	—	\$2,000 00	—	4,214 76	—	—	6,947 88	54,326 82	—
Carver, . .	1,200 00	77 74	—	20 00	150 26	—	—	92 85	1,540 85	—
Duxbury, . .	3,000 00	138 75	—	25 00	320 89	—	—	319 83	3,804 47	—
E. Bridgewater, . .	5,600 00	318 00	—	50 00	928 00	—	—	255 00	7,151 00	—
Halifax, . .	700 00	40 00	—	16 50	46 26	—	—	85 56	888 32	—
Hanover, . .	3,450 00	140 00	—	40 00	400 00	—	—	300 00	4,330 00	\$25 00
Hanson, . .	1,700 00	135 00	1,000 00	30 00	311 51	—	238 03	48 68	2,463 22	—
Hingham, . .	12,065 86	—	—	—	1,000 00	—	239 40	694 74	15,000 00	—
Hull, . .	1,500 00	47 00	—	20 00	139 64	—	—	27 02	1,733 66	—
Kingston, . .	2,950 00	250 00	—	—	500 00	—	—	150 00	3,850 00	—
Lakeville, . .	1,500 00	125 00	—	25 00	100 00	—	150 00	50 00	1,950 00	—
Marion, . .	1,900 00	65 25	—	—	87 74	—	—	118 63	2,171 62	—
Marshfield, . .	2,500 00	145 00	—	20 00	448 00	—	637 00	29 00	3,779 00	—
Mattapoisett, . .	2,100 00	95 00	—	20 00	200 00	—	—	91 47	2,506 47	—
Middleborough, . .	11,000 00	—	1,000 00	13 25	1,000 00	\$28,000 00	—	1,500 00	42,513 25	—
Pembroke, . .	1,500 00	130 50	—	13 00	156 15	—	147 81	90 87	2,038 33	—
Plymouth, . .	19,086 27	—	1,250 00	126 95	2,069 78	—	110 00	1,157 00	23,800 00	—
Plympton, . .	800 00	60 00	—	—	150 82	—	—	35 40	1,046 22	—
Rochester, . .	1,600 00	79 78	—	250 00	172 83	—	—	22 37	2,124 98	—
Rockland, . .	10,000 00	348 75	—	35 00	1,031 75	—	—	250 00	13,428 76	—
Scituate, . .	4,500 00	166 55	—	25 00	643 24	1,743 26	—	306 00	5,640 79	—

SUFFOLK COUNTY — CONTINUED.

South Scituate, .	2,750 00	153 00	—	—	—	—	242 38	3,173 38	—
Wareham, .	6,500 00	287 00	—	838 47	—	650 00	335 00	8,635 47	—
W. Bridgewater, .	3,000 00	10 00	125 00	167 27	—	—	371 16	3,677 18	—
Whitman, .	6,000 00	450 00	—	800 00	6,000 00	—	1,200 00	14,450 00	—
Totals, .	\$165,666 31	\$4,092 69	\$5,375 00	\$17,466 45	\$35,743 26	\$2,658 82	\$16,792 95	\$248,640 03	\$25 00

Boston, .	\$1,350,996 24	\$51,539 67	\$4,200 00	\$64,704 67	\$125,687 45	—	\$171,032 71	\$1,770,660 74	—
Chelsea, .	60,315 57	—	2,400 00	8,151 43	—	\$10,000 00	2,273 37	83,220 37	—
Revere, .	10,000 00	190 00	—	—	2,500 00	—	—	12,713 00	—
Winthrop, .	2,500 00	75 00	—	357 11	4,500 00	—	118 48	7,560 59	—
Totals, .	\$1,423,811 81	\$51,804 67	\$6,600 00	\$73,213 21	\$132,687 45	\$10,000 00	\$173,424 56	\$1,874,154 70	—

PLYMOUTH COUNTY — CONCLUDED.

TOWNS.	Amount of local funds, the income of which can be appropriated only for the support of Schools and Acad- emies.	Income of local funds.	Income of surplus rev- enue and other funds, including the dog tax, used at the option of the town.	No. of Acade- mies.	Whole No. at- tending for the year.	Amount of tu- tion paid.	No. of Private Schools.	Whole No. at- tending for the year.	Estimated amount of tuition.	Town's share of school fund payable Jan. 25, 1887.	How much of said fund was used for appa- ratus and books of reference.
Abington,	\$6,300 00	\$352 00	-	-	-	-	-	-	-	\$192 23	-
Bridgewater,	-	-	\$497 57	-	-	-	-	-	-	185 05	-
Brockton,	-	-	717 94	-	-	-	-	-	-	-	-
Carver,	5,500 00	200 00	109 21	-	-	-	-	-	\$640 00	213 16	-
Duxbury,	26,000 00	1,400 00	291 00	1	53	\$100 00	1	5	500 00	169 87	-
East Bridgewater,	-	-	314 69	-	-	-	-	-	-	182 63	-
Halifax,	-	-	-	-	-	-	-	-	-	304 90	-
Hanover,	1,000 00	50 00	196 35	1	36	750 00	-	-	-	171 62	-
Hanson,	-	-	153 82	-	-	-	-	-	-	214 57	-
Hingham,	30,000 00	1,800 00	-	1	78	900 00	4	25	300 00	44 72	-
Hull,	-	-	-	-	-	-	-	-	-	154 77	-
Kingston,	-	-	-	-	-	-	-	-	-	165 04	-
Lakeville,	-	-	-	-	-	-	-	-	-	311 21	-
Marion,	-	-	-	-	-	-	1	30	75 00	209 60	-
Marshfield,	-	-	217 00	-	-	-	-	-	-	164 57	-
Mattapoisett,	12,052 00	342 08	-	-	-	-	-	-	-	162 29	-
Middleborough,	-	-	-	-	-	-	2	65	1,200 00	208 01	-
Pembroke,	-	-	93 99	-	-	-	-	-	-	214 03	-
Plymouth,	383 25	18 25	-	-	-	-	2	30	3,000 00	82 85	-
Plympton,	-	-	144 00	-	-	-	-	-	-	306 11	-
Rochester,	-	-	140 26	-	-	-	-	-	-	310 88	-
Rockland,	-	-	-	-	-	-	-	-	-	209 08	-
Scutuate,	-	-	292 54	-	-	-	-	-	.	183 97	-

South Scituate, .	-	232 28	-	-	-	-	-	217 39	-
Wareham, .	-	341 98	-	-	-	-	-	196 40	-
West Bridgewater, .	80,000 00	-	-	-	-	-	-	220 95	-
Whitman, .	-	442 42	-	-	-	1	10	191 02	\$100 00
Totals, . .	\$161,235 25	\$8,485 33	3	167	\$1,750 00	12	185	\$5,186 92	\$100 00

SUFFOLK COUNTY — CONCLUDED.

Boston, .	\$57,343 22	\$2,555 00	\$43,365 25	22	5,000	\$290,000 00	70	2,050	\$160,000 00	-
Chelsea, .	-	-	-	-	-	-	*2	458	500 00	-
Revere, .	-	-	745 40	-	-	-	-	-	-	\$44 05
Winthrop, .	-	-	173 25	-	-	-	-	-	-	163 50
Totals, . .	\$57,343 22	\$2,555 00	\$44,283 90	22	5,000	\$290,000 00	72	2,508	\$160,500 00	\$207 55

* One parochial school.

WORCESTER COUNTY.

TOWNS.	Population—State Census, 1885.	Valuation — 1886.	No. of Public Schools.	No. of persons in town May 1, 1886, between 5 and 15 years of age.	No. of persons in town May 1, 1886, between 8 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school-year.	The per cent. of attendance based upon the average membership.	No. of teachers required by the Public Schools.
Ashturnham,	2,058	\$978,311	13	305	171	409	4	79	241	321	290	.90	13
Athol,	4,758	2,589,205	22	809	519	936	7	101	563	735	682	.93	23
Auburn,	1,268	487,155	7	237	141	256	3	15	141	171	150	.88	7
Barre,	2,093	1,395,280	12	307	191	366	3	44	193	296	261	.88	13
Berlin,	899	485,534	5	164	111	180	1	15	110	134	121	.90	5
Blackstone,	5,436	2,403,880	20	1,154	681	1,183	5	43	698	879	766	.87	23
Bolton,	876	481,460	7	105	67	170	—	35	84	116	107	.92	7
Boylston,	834	535,642	6	166	104	176	1	16	100	134	122	.91	6
Brookfield,	3,013	1,261,261	15	506	337	640	4	67	424	499	440	.88	16
Charlton,	1,823	943,140	13	279	215	333	7	51	190	241	215	.89	13
Clinton,	8,945	5,198,174	34	1,805	1,170	1,820	—	91	1,174	1,574	1,408	.90	36
Dana,	695	278,074	6	91	66	120	3	11	61	108	99	.92	6
Douglas,	2,205	1,027,962	13	409	241	428	4	39	228	358	264	.74	13
Dudley,	2,742	936,285	11	598	399	454	11	32	306	301	260	.86	12
Fitchburg,	15,375	11,949,503	62	3,000	1,836	3,352	8	279	2,032	2,523	2,306	.91	68
Gardner,	7,283	3,397,004	23	1,234	734	1,196	4	96	495	1,109	969	.87	25
Grafton,	4,498	2,259,872	22	885	596	1,009	9	15	593	802	679	.85	24
Hardwick,	3,145	1,263,340	15	508	341	551	3	26	354	425	378	.89	16
Harvard,	1,184	918,062	9	139	80	184	2	13	104	141	120	.85	9
Holden,	2,471	1,037,290	13	584	338	497	5	52	291	398	344	.86	17
Hopedale,	926	690,679	5	188	—	210	—	27	120	186	171	.92	7
Hubbardston,	1,303	707,409	10	215	132	258	5	35	149	193	180	.93	10
Lancaster,	2,050	2,335,869	11	318	197	350	—	40	208	270	247	.91	14
Leicester,	2,923	1,768,891	15	561	334	658	9	59	424	551	493	.90	18
Leominster,	5,297	3,796,158	21	868	500	1,112	2	75	600	934	881	.91	25
Lunenburg,	1,071	670,494	8	157	97	185	2	27	98	138	128	.93	8

SCHOOL RETURNS.

lxvii

Mendon,	945	558,233	8	148	78	189	3	28	76	160	142	.89	8
Milford,	9,343	4,703,607	36	1,550	1,054	1,636	1	161	928	1,263	1,160	.92	36
Millbury,	4,555	1,948,923	16	847	610	879	2	15	627	695	645	.93	16
New Braintree,	558	446,429	6	99	74	117	3	10	74	89	80	.90	6
Northborough,	1,853	1,131,937	9	266	229	352	3	21	228	301	271	.90	9
Northbridge,	3,786	2,062,199	16	783	380	802	3	42	456	586	534	.91	16
North Brookfield,	4,201	1,758,065	18	782	669	783	3	64	716	655	623	.95	19
Oakham,	749	347,325	6	108	90	132	4	18	90	116	100	.86	5
Oxford,	2,355	1,281,802	12	311	308	424	4	22	308	357	314	.88	12
Paxton,	561	310,293	4	88	54	94	-	7	54	77	68	.88	4
Petersham,	1,032	576,332	9	145	94	169	6	15	95	131	120	.91	9
Phillipston,	530	263,950	5	87	50	103	2	16	50	87	79	.91	5
Princeton,	1,038	848,426	8	156	92	207	12	29	118	154	139	.90	8
Royalston,	1,153	652,321	10	176	122	230	5	55	122	174	165	.95	10
Rutland,	963	488,889	11	198	144	240	1	37	162	193	181	.94	11
Shrewsbury,	1,450	1,044,425	9	256	233	303	6	52	185	270	247	.92	10
Southborough,	2,100	1,392,570	10	348	215	356	4	38	201	279	244	.87	10
Southbridge,	6,500	3,085,544	22	1,419	884	888	9	62	523	694	619	.89	24
Spencer,	8,247	3,877,950	33	1,827	1,126	1,933	7	80	1,126	1,564	1,422	.91	38
Sterling,	1,331	867,354	11	239	157	278	3	52	153	221	201	.91	12
Sturbridge,	1,980	972,930	14	370	224	415	6	12	237	310	274	.88	14
Sutton,	3,101	1,279,671	15	498	-	478	12	6	460	328	283	.86	15
Templeton,	2,627	1,076,472	16	474	300	562	5	92	331	444	399	.90	16
Upton,	2,265	872,018	10	324	203	395	1	55	224	304	279	.92	11
Uxbridge,	2,948	1,950,990	18	578	278	593	10	15	278	435	390	.90	18
Warren,	4,032	2,253,063	20	748	457	868	-	59	488	661	605	.92	21
Webster,	6,220	2,246,844	13	1,273	710	522	1	19	255	428	356	.83	14
Westborough,	4,880	2,528,886	20	829	594	998	-	94	585	749	691	.92	23
West Boylston,	2,927	1,130,000	13	567	408	604	5	42	348	185	181	.98	14
West Brookfield,	1,747	795,109	10	259	181	292	4	17	203	230	210	.91	10
Westminster,	1,556	747,917	13	268	191	343	5	73	219	264	229	.87	13
Winchendon,	3,872	1,982,922	18	647	406	729	7	69	412	575	524	.91	19
Worcester,	68,389	54,566,389	240	13,795	9,950	13,263	-	982	7,802	10,751	9,482	.88	277
Totals,	244,965	\$149,845,719	1,077	46,055	30,163	47,210	239	3,742	28,115	37,267	33,338	.89	1,167

WORCESTER COUNTY — CONTINUED.

TOWNS.	HIGH SCHOOLS.										Salary of Principal.					
	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	Av'ge wages per month of male teachers in Public Schools.	Av'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of schools kept less than six months each.	No. of High Schools.		No. of teachers.	No. of pupils.	How supported.	LENGTH.	
															Months.	Days.
Ashburnham,	1	18	2	1	\$70 00	\$31 16	98-7	7-11	1	1	1	59	Taxation,	9	\$630 00	
Athol, .	3	23	2	2	66 04	34 57	166-10	7-10	1	1	2	74	Taxation,	9	1,000 00	
Auburn,	—	12	4	1	—	29 00	51-2	7-6	—	—	—	—	—	—	—	
Barre, .	4	13	2	1	71 73	31 11	97	8-2	—	1	2	63	Taxation,	9	783 33	
Berlin, .	—	7	4	3	—	32 80	40-1	8	—	—	—	—	—	—	—	
Blackstone, .	4	22	7	1	70 37	30 20	173-10	8-13	—	1	2	62	Taxation,	9	1,000 00	
Bolton, .	1	7	5	5	60 00	29 00	64	9	—	1	1	38	Not by tax,	10	600 00	
Boylston,	—	8	1	—	—	34 00	48-5	8	—	—	—	—	—	—	—	
Brookfield,	1	20	2	2	105 26	33 30	121	8-1	—	1	2	68	Taxation,	9-10	1,000 00	
Charlton,	5	14	3	2	36 00	30 00	96	7-11	1	—	—	—	—	—	—	
Clinton,	1	35	13	7	160 00	42 32	340	10	—	1	3	104	Taxation,	10	1,600 00	
Dana, .	—	9	1	—	—	24 00	39-5	6-10	—	—	—	—	—	—	—	
Douglas,	1	15	1	—	80 00	30 50	106-10	8-12	—	1	1	46	Taxation,	10	800 00	
Dudley, .	5	15	3	3	45 00	33 56	92-5	8-8	—	1	2	52	Taxation,	10	1,000 00	
Fitchburg,	6	67	20	15	100 00	40 00	578	9-8	—	1	7	294	Taxation,	9-10	1,942 50	
Gardner,	4	30	3	3	98 75	43 12	192-10	8-7	—	1	3	81	Taxation,	10	1,200 00	
Grafton,	2	28	7	5	119 00	36 97	192-15	8-15	—	—	3	85	Taxation,	9	1,066 66	
Hardwick,	1	21	2	—	36 00	31 25	133	8-13	—	—	—	—	—	—	—	
Harvard,	4	10	3	3	33 20	31 08	72	8	—	—	—	—	—	—	—	
Holden, .	4	15	4	2	58 62	31 52	109	6-16	2	1	2	48	Taxation,	9	900 00	
Hopedale,	—	10	5	4	—	45 57	39-4	7-17	—	1	2	30	Taxation,	4	700 00	
Hubbardston,	3	13	2	—	43 00	26 00	70	7	2	—	—	—	—	—	—	
Lancaster,	5	11	1	—	57 00	29 00	88	8	—	1	3	58	Taxation,	9-10	1,110 00	
Leicester,	4	16	4	1	89 75	39 30	131-15	9	—	1	4	73	Part tax,	9-15	1,700 00	
Leominster,	2	23	5	2	110 00	37 00	197	9-10	—	1	2	55	Taxation,	10	1,500 00	
Lunenburg, .	2	13	6	2	34 00	29 00	60	7-10	1	—	—	—	—	—	—	

SCHOOL RETURNS.

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Mendon,	1	9	2	1	60.00	28 22	55	6-9	-	1	1	1	41	Taxation,	6	360 00
Milford,	3	42	19	10	102 22	42 53	281	9-1	1	1	5	192	Taxation,	10	1,700 00	
Millbury,	3	19	4	10	87 50	38 52	144	9	-	1	2	66	Taxation,	10	1,400 00	
New Braintree,	-	10	4	-	-	30 30	45	7-8	-	-	-	-	-	-	-	
Northborough,	1	11	3	3	108 10	35 63	79-15	8-17	-	1	1	26	Taxation,	9-5	1,000 00	
Northbridge,	1	19	12	11	120 00	43 06	159-15	9-19	-	1	1	30	Taxation,	10	1,200 00	
North Brookfield,	1	23	1	-	144 00	35 79	166	9-4	-	1	2	80	Taxation,	10	1,500 00	
Oakham,	-	6	-	-	-	27 20	44-10	7-5	-	-	-	-	-	-	-	
Oxford,	2	12	2	1	125 00	32 00	98	8-3	-	1	1	58	Taxation,	10	1,000 00	
Paxton,	-	5	1	1	-	31 17	25-15	6-8	-	-	-	-	-	-	-	
Petersham,	2	15	-	-	45 00	24 00	66-3	7-7	-	1	1	25	Taxation,	6-10	305 00	
Phillipston,	-	9	1	1	-	24 00	33-15	6-15	-	-	-	-	-	-	-	
Princeton,	1	12	-	-	50 00	31 25	54	6-15	-	-	-	-	-	-	-	
Royalston,	2	17	1	1	29 00	30 00	75	7-10	-	-	-	-	-	-	-	
Rutland,	1	15	2	2	50 00	27 00	63	6	-	-	-	-	-	-	-	
Shrewsbury,	1	12	3	2	100 00	32 88	77	8-5	-	1	2	52	Taxation,	9	900 00	
Southborough,	1	12	5	3	100 00	40 00	88	8-16	-	1	1	41	Taxation,	10	1,000 00	
Southbridge,	2	32	5	-	105 38	38 27	192-1	9-1	-	1	2	61	Taxation,	9-16	1,032 50	
Spencer,	5	39	22	12	66 66	35 00	298	9-1	-	1	3	119	Taxation,	10	700 00	
Sterling,	1	13	-	-	94 73	30 42	84-10	7-13	-	1	2	52	Taxation,	9-10	900 00	
Sturbridge,	-	16	1	-	-	27 69	115	8-4	-	-	-	-	-	-	-	
Sutton,	2	21	5	2	52 50	31 86	112	7-11	-	1	1	27	Taxation,	9	700 00	
Templeton,	2	16	1	-	83 33	29 50	122-15	7-7	-	2	2	75	Taxation,	{ 9 9	800 00 700 00	
Upton,	4	12	5	4	70 00	37 00	79-15	7-19	-	1	2	85	Taxation,	9-15	975 00	
Uxbridge,	1	22	7	5	110 00	33 92	142	8-9	-	1	1	30	Taxation,	10	1,100 00	
Warren,	3	20	5	2	70 00	40 00	164	8-8	1	1	2	48	Taxation,	9	900 00	
Webster,	2	17	-	-	77 75	53 00	118	9-1	-	1	2	48	Taxation,	10	1,100 00	
Westborough,	3	22	10	8	105 00	40 00	171-10	9-2	-	1	3	85	Taxation,	9-2	1,500 00	
West Boylston,	1	18	5	5	133 33	33 00	99-5	7-10	-	1	2	31	Taxation,	8-15	1,000 00	
West Brookfield,	-	12	6	5	-	32 00	84	9	-	-	-	-	-	-	-	
Westminster,	2	16	3	2	66 66	27 33	96-10	7-10	1	1	1	29	Taxation,	9	600 00	
Winchendon,	2	19	2	1	127 77	34 10	138	7-14	-	1	2	57	Taxation,	9	1,166 64	
Worcester,	23	254	191	189	140 87	54 72	2,364	10	-	1	18	959	Taxation,	10	3,000 00	
Totals,	136	1,272	440	345	\$86 67	\$38 50	9,333-18	8-2	9	42	101	3,607	-	387-18	\$45,071 63	

WORCESTER COUNTY — CONTINUED.

TOWNS.	Amount raised by taxes for schools, including wages of teachers, board, fuel, care of fires and school-rooms, for the school-year 1886-87.	Expense of supervision by school committee.	Salary of Superintendent of Public Schools.	Expense of Printing reports, etc.	Expense of sundries, — books, stationery, etc.	Amount expended for new school houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.	Amount of voluntary contributions for Public Schools.
Ashburnham,	\$3,500 00	\$135 00	—	\$13 00	\$396 27	—	\$108 00	\$119 00	\$4,271 27	—
Athol,	8,000 00	300 00	—	49 40	981 48	—	314 91	234 66	9,880 45	—
Anburn,	1,300 00	75 00	—	6 00	100 00	—	350 00	50 00	1,881 00	—
Barre,	4,800 00	206 65	—	12 00	242 61	—	—	35 88	5,297 14	—
Berlin,	1,100 00	65 00	—	9 60	196 69	—	14 00	67 71	1,453 00	—
Blackstone,	7,500 00	—	\$300 00	50 00	1,465 69	—	1,068 91	—	10,384 60	—
Bolton,	1,500 00	99 00	—	15 00	204 00	—	—	69 00	1,887 00	—
Boylston,	1,700 00	156 20	—	8 00	159 62	—	—	101 47	2,125 29	—
Brookfield,	5,700 00	150 00	—	36 95	584 01	—	933 22	38 00	7,412 18	—
Charlton,	3,200 00	201 75	—	—	249 25	—	—	61 95	3,712 15	\$56 38
Clinton,	20,650 00	—	1,800 00	45 25	2,864 89	—	—	1,689 56	27,049 70	—
Dana,	700 00	56 00	—	8 00	209 00	—	—	20 00	993 00	—
Douglas,	4,000 00	125 00	—	5 00	548 95	—	296 67	32 77	5,008 39	—
Dudley,	3,500 00	150 00	—	30 00	350 00	—	275 00	275 00	4,580 80	—
Fitchburg,	40,142 96	—	2,000 00	50 00	7,198 10	\$10,302 70	—	977 08	60,670 84	—
Gardner,	13,000 00	375 00	—	39 00	1,314 81	7,031 56	3,415 00	550 14	25,755 51	—
Grafton,	9,600 00	927 00	—	23 00	1,492 78	—	825 91	1,589 11	14,457 80	—
Hardwick,	4,300 00	200 00	—	30 00	169 14	—	—	433 06	5,132 20	—
Harvard,	2,500 00	123 75	—	21 00	274 62	—	—	114 69	3,034 06	—
Holden,	4,914 63	106 00	—	13 75	522 16	—	271 90	298 10	6,126 54	—
Hopedale,	3,500 00	100 00	—	10 00	300 00	—	290 00	300 00	4,500 00	—
Hubbardston,	2,000 00	142 50	—	29 25	121 41	—	—	222 16	2,515 32	—
Lancaster,	5,000 00	250 00	—	20 00	443 82	—	—	520 00	6,233 82	—
Leicester,	6,500 00	256 87	—	20 00	839 40	—	—	302 45	7,918 72	—
Leominster,	11,700 00	—	1,500 00	100 00	3,600 00	—	700 00	200 00	17,800 00	—
Lunenburg,	1,700 00	80 00	—	20 00	323 00	—	—	140 00	2,263 00	—

SCHOOL RETURNS.

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Mendon,	1,500 00	75 00	—	20 00	240 00	—	—	—	1,835 00	—
Milford,	17,764 61	50 00	1,500 00	25 00	1,266 49	—	—	304 92	20,911 02	—
Milbury,	8,000 00	425 00	—	25 00	500 00	—	—	300 00	9,250 00	—
New Braintree,	1,488 12	75 00	—	18 00	114 45	—	122 74	50 69	1,869 00	—
Northborough,	3,500 00	180 00	—	20 00	202 90	—	786 16	83 53	4,772 59	—
Northbridge,	8,500 00	350 00	—	50 00	612 78	—	803 83	1,031 65	11,348 26	—
N. Brookfield,	9,000 00	—	—	60 00	700 00	—	—	750 41	10,510 62	—
Oakham,	850 00	72 50	—	8 00	100 00	—	—	—	1,030 50	—
Oxford,	5,000 00	250 00	—	3 00	899 39	—	176 00	210 40	6,538 79	—
Paxton,	900 00	95 00	—	16 00	64 71	—	81 09	32 93	1,189 73	—
Petersham,	1,600 00	140 00	—	7 00	265 29	750 00	—	47 76	2,810 05	—
Phillipston,	800 00	65 00	—	5 00	—	—	200 00	—	1,565 00	—
Princeton,	2,000 00	132 41	—	10 00	106 18	—	54 34	13 48	2,316 41	—
Royalston,	1,500 00	118 00	—	8 91	217 60	—	—	17 14	1,861 65	—
Rutland,	1,800 00	98 00	—	9 00	230 00	—	—	105 53	2,242 53	—
Shrewsbury,	4,000 00	200 00	—	18 00	473 73	—	—	127 42	4,819 15	—
Southborough,	4,300 00	175 00	—	22 00	465 80	—	340 00	450 46	5,753 26	—
Southbridge,	11,200 00	—	1,312 48	49 55	1,814 54	—	104 50	112 50	14,593 57	—
Spencer,	16,750 00	—	1,000 00	66 50	1,696 47	—	901 67	784 11	21,192 75	—
Sterling,	3,600 00	147 65	—	20 00	182 26	1,142 58	—	61 01	5,153 50	—
Sturbridge,	3,200 00	190 42	—	—	189 42	—	—	145 54	3,725 38	—
Sutton,	4,500 00	150 00	—	—	284 09	710 00	—	171 82	5,815 91	—
Templeton,	4,700 00	156 50	—	23 80	1,047 17	—	800 00	233 59	6,961 06	—
Upton,	4,153 59	151 00	—	20 48	534 25	—	—	372 34	5,231 66	—
Uxbridge,	6,700 00	45 00	400 00	25 00	1,000 00	2,266 00	441 30	150 00	10,586 00	—
Warren,	9,100 00	—	400 00	—	500 00	33,991 15	1,025 00	500 00	14,932 45	—
Webster,	5,850 00	225 00	—	40 80	577 12	—	—	131 85	7,849 77	—
Westborough,	10,985 22	—	600 00	—	1,115 20	—	—	643 78	13,344 20	—
West Boylston,	4,600 00	180 00	—	10 00	405 52	—	—	182 54	5,378 06	—
W. Brookfield,	3,000 00	153 50	—	25 00	196 03	—	—	149 00	3,523 53	—
Westminster,	3,226 62	148 85	—	23 00	307 48	—	224 05	250 38	4,180 38	—
Winchendon,	6,291 94	300 62	—	49 32	457 42	514 70	—	257 19	7,871 19	—
Worcester,	188,268 18	1,066 68	3,270 80	177 24	22,163 00	45,354 26	539 97	10,412 64	271,252 77	—
Totals,	\$630,635 87	\$9,696 85	\$14,083 28	\$1,513 80	\$64,110 99	\$102,062 95	\$15,464 17	\$26,526 40	\$734,589 52	\$116 38

60 00

SCHOOL RETURNS.

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Mendon,	-	-	-	-	-	117 13	-	-	-	-	-	-	-	-	2	295	-	-	210 88	31 62
Millford,	-	-	-	-	-	318 89	-	-	-	-	-	-	-	-	1	-	500 00	-	114 61	-
Millbury,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	211 77	-
New Braintree,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	306 51	10 00
Northborough,	5,000 00	-	-	-	-	-	-	-	-	-	-	-	-	-	1	16	1,183 00	-	166 72	-
Northbridge,	-	-	-	-	-	272 16	-	-	-	-	-	-	-	-	-	-	-	-	201 63	48 51
North Brookfield,	-	-	-	-	-	370 20	-	-	-	-	-	-	-	-	1	40	320 00	-	203 71	-
Oakham,	-	-	-	-	-	107 46	-	-	-	-	-	-	-	-	-	-	-	-	308 26	-
Oxford,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Paxton,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	306 38	-
Petersham,	735 00	-	-	-	-	296 53	-	-	-	-	-	-	-	-	-	-	-	-	209 94	-
Phillipston,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	306 11	-
Princeton,	-	-	-	-	-	56 00	-	-	-	-	-	-	-	-	-	-	-	-	210 68	-
Royalston,	6,500 00	-	-	-	-	114 85	-	-	-	-	-	-	-	-	-	-	-	-	213 56	-
Rutland,	-	-	-	-	-	36 57	-	-	-	-	-	-	-	-	-	-	-	-	311 75	-
Shrewsbury,	1,000 00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	217 46	-
Southborough,	-	-	-	-	-	133 52	-	60	5,112 00	-	-	-	-	-	2	32	1,235 00	-	171 69	-
Southbridge,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	680	-	-	91 18	19 40
Spencer,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	60	150 00	-	120 18	38 10
Sterling,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	215 31	-
Sturbridge,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	225 65	-
Sutton,	2,000 00	-	-	-	-	234 44	-	-	-	-	-	-	-	-	-	-	-	-	197 47	45 50
Templeton,	-	-	-	-	-	174 02	-	-	-	-	-	-	-	-	1	15	-	-	184 18	46 04
Upton,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	220 95	-
Uxbridge,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	189 28	25 00
Warren,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200 49	50 00
Webster,	-	-	-	-	-	335 20	-	-	-	-	-	-	-	-	*2	800	-	-	226 88	-
Westborough,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	12	100 00	-	206 73	100 00
West Boylston,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	187 26	-
West Brookfield,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	223 30	196 03
Westminster,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	218 40	35 00
Winchendon,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	45	180 00	-	196 26	24 47
Worcester,	1,504 76	-	-	-	-	-	-	2	150	4,000 00	-	-	-	-	12	2,300	3,000 00	-	-	-
Totals,	\$231,992 75	\$12,716 31	\$5,281 85	7	541	\$13,067 00	45	4,818	\$8,048 00	\$11,597 45	\$1,042 77									

* Parochial.

RECAPITULATION.

TOWNS.	Population—State Census, 1885.	Valuation — 1886.	No. of Public Schools.	No. of persons in town May 1, 1886, between 5 and 15 years of age.	No. of persons in town May 1, 1886, between 16 and 14 years of age.	No. of different pupils of all ages in the Public Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average membership of all the Schools.	Average attendance in all the Public Schools during the school-year.	The per cent. of attendance based upon the average membership.
Barnstable,	29,845	\$16,803,862	163	4,990	3,331	5,485	5	845	3,422	4,754	4,288	.90
Berkshire,	73,828	39,326,919	380	14,772	10,521	15,820	237	1,301	9,801	12,192	10,821	.89
Bristol,	158,498	116,132,019	585	28,594	18,991	27,977	66	1,828	16,973	21,967	19,584	.89
Dukes,	4,135	3,290,867	22	585	415	638	2	76	429	545	463	.85
Essex,	263,727	190,681,470	894	46,501	28,271	44,715	118	3,254	25,991	37,828	34,002	.90
Franklin,	37,449	18,006,628	266	7,052	4,448	7,357	74	643	4,261	6,184	5,567	.90
Hampden,	116,764	80,183,152	431	22,134	15,408	19,611	114	1,568	12,247	15,011	13,710	.91
Hampshire,	48,472	27,364,603	284	8,823	5,882	9,471	127	831	5,597	7,619	6,806	.89
Middlesex,	357,311	307,284,559	1,258	65,104	41,211	67,743	149	6,153	39,489	55,089	50,169	.91
Nantucket,	3,142	2,791,741	12	560	460	400	—	20	292	363	330	.91
Norfolk,	102,142	106,866,614	461	19,022	12,122	20,328	102	1,572	11,925	16,666	15,162	.91
Plymouth,	81,680	53,428,697	369	13,025	8,282	15,664	100	1,296	9,078	12,837	11,241	.88
Suffolk,	421,109	735,524,572	634	75,835	45,587	70,942	42	5,839	43,467	63,217	56,678	.90
Worcester,	244,965	149,845,719	1,077	46,055	30,163	47,210	239	3,742	28,115	37,267	33,338	.89
Totals,	1,943,067	\$1,847,531,422	6,836	353,052	225,092	353,361	1,375	28,968	211,087	291,539	262,159	.90

SCHOOL RETURNS.

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RECAPITULATION — CONTINUED.

TOWNS.	HIGH SCHOOLS.											Salary of Principal.		
	No. of teachers required by the Public Schools.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Nor- mal Schools.	No. of teachers who have graduated from Normal Schools.	A'v'g wages per month of male teachers in Public Schools.	A'v'g wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of schools kept less than six months each.	No. of High Schools.		No. of teachers.	No. of pupils.
Barnstable,	166	45	182	57	43	\$68 50	\$33 32	1,366-4	8-6	1	11	16	583	\$9,770 00
Berkshire,	435	65	463	66	34	64 83	29 70	3,229-2	7-16	5	13	25	845	12,986 07
Bristol, .	677	67	688	147	100	93 59	41 64	5,478-12	8-15	-	11	38	1,433	14,939 66
Dukes, .	23	7	23	12	10	49 99	30 00	178	7-13	-	1	1	29	540 00
Essex, .	1,055	94	1,072	384	297	114 29	43 28	8,384-1	9-2	1	26	90	2,817	33,757 60
Franklin,	276	38	358	36	39	36 47	27 31	1,987-8	7-4	2	8	15	437	4,613 00
Hampden,	494	53	546	166	116	92 12	41 39	3,834-9	8-2	5	9	36	1,071	13,950 00
Hampshire,	312	45	343	52	23	51 42	28 89	2,290	7-12	6	11	24	632	8,455 60
Middlesex,	1,616	165	1,581	616	466	132 57	49 93	9,959-7	8-17	7	45	147	5,041	59,654 67
Nantucket,	13	1	12	2	-	100 00	28 25	116-6	9-3	-	1	2	50	1,000 00
Norfolk,	511	85	488	157	124	101 72	41 95	4,413-8	9-5	1	22	52	1,768	28,429 00
Plymouth,	401	72	447	169	116	74 27	36 35	3,400-10	8-18	-	16	40	1,240	18,031 03
Suffolk, .	1,374	160	1,221	830	820	248 18	71 92	6,085-2	9-16	-	13	114	2,853	37,761 50
Worcester,	1,167	136	1,272	440	345	86 67	38 50	9,333-18	8-2	9	42	101	3,607	45,071 63
Totals,	8,520	1,033	8,696	3,134	2,233	\$116 85	\$44 93	60,056-7	8-9	37	229	701	22,406	\$288,959 76

RECAPITULATION — CONTINUED.

TOWNS.	Amount raised by taxes for Schools, including wages of teachers, board, fuel, care of rooms, for the school-year 1886-87.	Expense of supervision by school committee.	Salary of Superintendent of Public Schools.	Expense of Printing reports, etc.	Expense of sundries, — books, stationery, etc.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount paid for all school purposes from money raised by taxation.	Amount of voluntary contributions for Public Schools.
Barnstable,	\$63,520 00	\$1,513 59	\$2,263 39	\$330 00	\$7,304 06	\$3,393 87	\$1,301 35	\$4,505 31	\$84,131 57	—
Berkshire,	142,305 82	2,994 73	4,350 00	589 80	12,605 24	4,960 91	5,732 02	8,710 59	182,249 11	\$50 00
Bristol, .	359,899 99	2,406 15	9,256 50	639 10	35,735 84	5,154 98	6,422 80	16,673 49	436,202 85	56 25
Dukes, .	5,938 00	272 00	18 00	56 25	597 98	—	664 80	419 57	7,972 60	15 00
Essex, .	566,457 49	8,250 43	8,750 00	2,002 43	53,300 49	11,385 87	30,456 84	38,141 31	718,665 51	110 00
Franklin, .	62,747 63	2,806 53	60 00	241 05	8,769 29	2,827 06	2,715 27	3,214 47	83,386 30	497 00
Hampden,	250,686 18	4,063 73	6,650 00	473 02	23,598 70	1,086 30	10,168 60	10,679 46	307,406 49	1,173 00
Hampshire,	84,599 51	2,434 49	1,899 50	262 54	8,610 70	4,178 98	7,241 70	4,411 56	113,638 98	7 00
Middlesex,	1,002,010 00	12,095 35	20,813 00	2,511 25	88,187 94	190,601 63	54,063 31	83,003 04	1,451,277 57	391 00
Nantucket,	4,902 20	100 00	—	21 00	356 69	—	—	85 00	5,464 89	—
Norfolk, .	296,758 62	3,881 05	13,941 62	608 44	30,839 71	91,808 42	6,348 32	16,985 13	437,256 37	50 00
Plymouth,	165,666 31	4,092 69	5,375 00	844 55	17,466 45	35,743 26	2,658 82	16,792 95	248,640 03	25 00
Suffolk, .	1,423,811 81	51,804 67	6,600 00	2,613 00	73,213 21	132,687 45	10,000 00	173,424 56	1,874,154 70	—
Worcester,	630,635 87	9,696 85	14,083 28	1,513 80	64,110 99	102,062 95	15,464 17	26,526 40	734,589 52	116 38
Totals,	\$5,059,939 43	\$106,412 26	\$94,060 29	\$12,706 23	\$424,697 29	\$585,951 68	\$153,238 00	\$403,572 84	\$6,685,036 49	\$2,490 63

RECAPITULATION — CONCLUDED.

TOWNS.	Amount of local funds the income of which can be appropriated only for the support of Schools and Academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school fund payable Jan. 25, 1887.	How much of said fund was used for apparatus and books of reference.
				No. of Academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of Private Schools.	Whole No. attending for the year.	Estimated amount of tuition.		
Barnstable,	\$41,433 00	\$2,079 58	\$1,840 84	2	69	\$883 00	3	16	\$5,290 00	\$3,439 88	\$265 32
Berkshire,	19,598 00	1,209 42	1,621 03	1	—	—	13	717	24,640 00	8,073 41	94 40
Bristol,	184,500 00	12,156 80	5,755 52	3	320	14,756 25	39	2,526	14,550 00	3,158 41	86 44
Dukes,	—	—	128 16	1	26	—	—	—	—	1,486 14	93 45
Essex,	501,155 60	20,073 96	6,915 46	5	703	31,486 00	44	4,938	33,847 00	4,853 43	23 37
Franklin,	69,585 33	3,517 05	864 76	6	740	20,663 17	5	99	5,605 00	7,029 14	371 27
Hampden,	168,161 46	7,540 57	3,056 89	3	413	12,476 33	21	4,913	32,947 00	4,803 72	501 67
Hampshire,	390,880 93	20,739 95	2,331 61	4	400	500 00	12	405	15,328 00	6,032 60	133 78
Middlesex,	175,228 93	10,228 81	5,370 88	12	830	85,744 50	63	7,117	75,491 00	8,442 33	419 07
Nantucket,	—	—	—	1	80	640 00	1	12	150 00	187 94	60 00
Norfolk,	95,438 46	4,447 44	6,860 42	4	148	5,341 00	22	687	12,300 00	4,019 58	180 95
Plymouth,	161,235 25	8,485 33	4,185 05	3	167	1,750 00	12	185	5,955 00	5,186 92	100 00
Suffolk,	57,343 22	2,555 00	44,283 90	22	5,000	290,000 00	72	2,508	160,500 00	207 55	—
Worcester,	231,992 75	12,716 31	5,281 85	7	541	13,067 00	45	4,818	8,048 00	11,597 45	1,042 77
Totals,	\$2,096,552 93	\$105,750 22	\$88,496 37	74	9,437	\$477,307 25	352	28,941	\$394,651 00	\$68,518 50	\$3,372 49

EVENING SCHOOLS.

CITIES AND TOWNS.	No. of Schools.	ATTENDANCE.			TIME.	No. of Teachers.	Expense.
		Males.	Females.	Average.			
Boston, . . .	20	3,093	*	2,855	1,789	138	\$44,736 26
Brockton, . . .	1	61	51	69	41	3	370 80
Brookline, . . .	1	35	30	28	64	2	436 00
Cambridge, . . .	4	453	124	251	50	22	2,297 00
Chelsea, . . .	2	387	*	125	50	9	1,000 00
Chicopee, . . .	2	165	225	161	44	26	979 70
Clinton, . . .	1	99	86	72	48	6	385 00
Concord, . . .	1	—	—	20	32	2	79 00
Dedham, . . .	1	50	20	45	50	4	500 00
Fall River, . . .	21	1,305	250	505	78	42	3,499 12
Fitchburg, . . .	2	97	60	56	43	17	327 25
Haverhill, . . .	3	294	200	109	59	11	1,671 00
Holyoke, . . .	14	589	243	316	40	32	3,130 24
Hyde Park, . . .	1	31	8	19	93	2	646 90
Lawrence, . . .	14	297	87	275	45	26	1,200 00
Lowell, . . .	9	1,684	841	869	95	56	10,087 84
Lynn, . . .	11	396	141	418	46	44	3,277 70
Malden, . . .	1	131	*	70	68	5	1,154 57
Maynard, . . .	1	—	—	36	54	2	247 25
Milford, . . .	1	36	—	25	70	1	320 84
Monson, . . .	2	137	*	41	32	3	150 00
New Bedford, . . .	3	350	150	270	88	21	3,075 00
Newburyport, . . .	1	48	34	44	30	5	185 00
Newton, . . .	1	62	58	60	42	9	532 98
North Adams, . . .	3	123	*	—	40	4	423 09
Northampton, . . .	1	80	6	26	52	2	303 52
Pittsfield, . . .	1	124	4	60	66	4	691 80
Rockland, . . .	1	36	6	20	31	2	125 00
Salem, . . .	3	325	158	136	186	16	1,600 00
Somerville, . . .	3	379	*	131	42	10	1,567 25
Spencer, . . .	1	123	67	80	58	10	482 00
Springfield, . . .	2	342	108	130	90	18	1,427 25
Taunton, . . .	2	251	80	171	100	11	1,500 00
Waltham, . . .	3	162	121	123	142	11	1,008 50
Warren, . . .	2	101	*	—	24	4	100 00
Warwick, . . .	1	25	15	35	50	1	108 60
Westfield, . . .	1	87	11	25	36	6	288 23
West Springfield, . . .	1	31	*	26	67	3	185 19
Winchester, . . .	1	60	28	40	33	10	500 00
Woburn, . . .	1	40	11	43	50	4	587 40
Worcester, . . .	9	328	41	201	80	26	3,894 28
Totals, . . .	154	12,417	3,264	7,986	4,198	630	\$95,081 56

* With males.

RETURNS OF SCHOOLS IN STATE INSTITUTIONS FOR THE YEAR ENDING JULY 31, 1887.

STATE INSTITUTIONS.	No. of Schools in the Institution.	No. of different Scholars of all ages during the year.	Average attendance during the year.	No. under 5 years of age attending School.	No. over 15 years of age attending School.	No. between 5 and 15 years of age remaining in the Institution July 31, 1887.	NO. OF TEACHERS DURING THE YEAR.		WAGES OF TEACHERS PER MONTH.		Length of each School in Months.
							Males.	Females.	Males.	Females.	
State Industrial School at Lancaster, .	3	152	67	—	25	13	—	5	—	\$25 00*	12 months.
State Primary School at Monson, .	8	546	292	16	8	258	—	8	—	20 83	11 $\frac{3}{4}$ months.
Lyman School for Boys at Westborough,	4	214	104	—	12	88	—	12	—	25 00*	12 months.

* With board.

GRADUATED TABLES — FIRST SERIES.

The following Table shows the sums appropriated by the several cities and towns in the State, for the education of each child between five and fifteen years of age. The income of the surplus revenue and of other funds held in a similar way, when appropriated to schools, is added to the sum raised by taxes; and these sums constitute the amount reckoned as appropriations. The income of such school funds as were given and are held on the express condition that their income shall be appropriated to schools, is not included. Such an appropriation of their income, being necessary to retaining the funds, is no evidence of the liberality of those holding the trust. But if a town appropriates the income of any fund to its public schools, which may be so appropriated or not, at the option of the voters, or when the town has a legal right to use such income in defraying its ordinary expenses, then such an appropriation is as really a contribution to common schools as an equal sum raised by taxes. On this account the surplus revenue, and sometimes other funds, are to be distinguished from local school funds as generally held. The income of the one *may* be appropriated to schools, or not, at the pleasure of the town; the income of the other *must* be appropriated to schools by the condition of the donation. Funds of the latter kind are usually donations made to furnish means of education in addition to those provided by a reasonable taxation. Committees are expected, in their annual returns, to make this distinction in relation to school funds.

Voluntary contributions are not included in the amount which is divided in order to ascertain the sum appropriated to each child. In many towns such contributions, however liberal, are not permanent, and cannot be relied upon as a stated provision. They are often raised and applied to favor particular schools, or classes of scholars, and not to benefit equally all that attend the public schools. Besides, the value of board and fuel gratuitously furnished is determined by the mere estimate of individuals, and is therefore uncertain; while the amount raised by taxes, being in money, has a fixed and definite value, and is a matter of record. Still the contributions voluntarily made are exhibited in a separate column of the Table, as necessary to a complete statement of the provision made by the towns for the education of their children.

The Table exhibits the rank of each city or town in the State, in respect to its liberality in the appropriation of money to its schools, as compared with other cities and towns for the year 1886-87, also its rank in a similar scale for 1885-86. It presents the sum appropriated to each child between five and fifteen.

GRADUATED TABLES — (FOR THE STATE) — FIRST SERIES.

Table showing the Comparative Amount of Money appropriated by the different Towns in the State for the Education of each Child in the Town, between the Ages of 5 and 15 Years.

For 1885-'86.	For 1886-'87.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
4	1	WELLESLEY,	\$31 12.7	\$10,467 40	\$333 67	\$10,801 07	347	—
2	2	Nahant,	27 28.1	3,819 32	—	3,819 32	140	—
3	3	Brookline,	25 85.5	44,730 00	—	44,730 00	1,730	—
1	4	Newton,	25 57.6	94,724 21	2,081 23	96,805 44	3,785	—
6	5	Milton,	24 86.7	15,442 62	—	15,442 62	621	—
10	6	Dedham,	24 65.7	28,844 23	300 00	29,144 23	1,182	—
20	7	Belmont,	22 83.3	7,329 30	—	7,329 30	321	—
16	8	Lexington,	22 36.4	10,287 56	—	10,287 56	460	—
5	9	Winchester,	21 34.1	17,500 00	—	17,500 00	820	—
7	10	Weston,	20 96.8	5,200 00	—	5,200 00	248	—
35	11	Bedford,	20 56	2,500 00	—	2,652 28	129	—
12	12	Boston,	19 89.4	1,350,996 24	152 28	1,394,361 49	70,090	—
200	13	Walpole,	19 83.4	8,000 00	43,365 25	8,211 32	414	—
9	14	Watertown,	19 43.2	21,200 00	211 32	21,200 00	1,091	—
11	15	Concord,	19 38.4	11,650 00	—	11,650 00	601	—
27	16	Dover,	19 27.7	1,600 00	—	1,600 00	83	—
13	17	Hull,	19 23.1	1,500 00	—	1,500 00	78	—
17	18	Arlington,	19 14.1	18,279 40	—	18,279 40	955	—

Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

For 1885-86.	For 1886-87.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
24	19	Hingham,	\$19 03.1	\$12,065 86	—	\$12,065 86	634	—
15	20	Waltham,	19 00.3	47,280 38	—	47,280 38	2,488	—
22	21	Bourne,	18 97	4,520 00	\$260 55	4,780 55	252	—
—	22	Hopedale,	18 61.7	3,500 00	—	3,500 00	188	—
29	23	Bridgewater,	18 49.1	8,600 00	497 57	9,097 57	492	—
34	24	Norwood,	18 48.9	9,300 00	—	9,300 00	503	—
31	25	Groton,	18 31	5,200 00	—	5,200 00	284	—
33	26	Medford,	18 13.7	28,258 19	—	28,258 19	1,558	—
14	27	Swampscott,	18 00.2	6,246 85	—	6,246 85	347	—
28	28	Harvard,	17 98.5	2,500 00	—	2,500 00	139	—
50	29	Holbrook,	17 47.1	7,000 00	390 17	7,390 17	423	—
25	30	Barnstable,	17 26.3	11,000 00	341 64	11,341 64	657	—
41	31	New Bedford,	17 12.9	87,106 18	782 52	87,888 70	5,131	—
47	32	Somerville,	16 97.3	89,891 52	—	89,891 52	5,296	—
39	33	Acton,	16 58.4	4,099 69	195 48	4,295 17	259	—
18	34	Cohasset,	16 44.3	5,700 00	203 00	5,903 00	359	—
100	35	Fairhaven,	16 38.3	6,500 00	331 83	6,831 83	417	—
23	36	Needham,	16 29.1	8,100 00	306 17	8,406 17	516	—
30	37	Barre,	16 26.3	4,800 00	192 89	4,992 89	307	—
65	38	Wellfleet,	16 12.9	4,000 00	—	4,000 00	248	—
42	39	Cambridge,	16 11.5	179,373 00	—	179,373 00	11,131	\$305 00
68	40	Malden,	16 07.7	42,267 07	—	42,267 07	2,629	—
37	41	Oxford,	16 07.7	5,000 00	—	5,000 00	311	—
45	42	Sandwich,	15 87.5	5,800 00	327 67	6,127 67	386	—
21	43	Falmouth,	15 74.2	6,000 00	391 42	6,391 42	406	—
66	44	Lancaster,	15 72.3	5,000 00	—	5,000 00	318	—

SCHOOL RETURNS.

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70	45	Abington, .	15	65.2	9,000 00	-	9,000 00	575	-
46	46	Shrewsbury, .	15	62.5	4,000 00	-	4,000 00	256	-
43	47	Hyde Park, .	15	61	26,600 00	-	26,600 00	1,704	-
38	48	Plymouth, .	15	59.3	19,086 27	-	19,086 27	1,224	-
51	49	Randolph, .	15	43.5	10,000 00	573 05	10,573 05	685	-
61	50	Canton, .	15	35.9	10,564 00	571 09	11,135 09	725	-
190	51	Bolton, .	15	23.8	1,500 00	100 00	1,600 00	105	-
48	52	Springfield, .	15	18.4	98,270 00	-	98,270 00	6,472	-
52	53	Sterling, .	15	06.3	3,600 00	-	3,600 00	239	-
73	54	Kingston, .	15	05.1	2,950 00	-	2,950 00	196	-
32	55	New Braintree, .	15	03.2	1,488 12	-	1,488 12	99	-
36	56	Haverhill, .	14	89.2	58,331 65	-	58,331 65	3,917	-
49	57	Stoneham, .	14	85	13,900 00	-	13,900 00	936	-
97	58	Weymouth, .	14	70.9	26,389 08	969 27	27,358 35	1,860	-
199	59	Revere, .	14	65.9	10,000 00	745 40	10,745 40	733	-
74	60	Orleans, .	14	52.6	2,200 00	65 98	2,265 98	156	-
86	61	Natick, .	14	41.7	22,000 00	-	22,000 00	1,526	-
76	62	North Andover, .	14	39.1	9,800 00	-	9,800 00	681	-
40	63	Lincoln, .	14	36.8	2,500 00	-	2,500 00	174	-
136	64	Gosnold, .	14	34.6	200 00	15 19	215 19	15	15 00
84	65	Tisbury, .	14	34.4	2,338 00	71 72	2,409 72	168	-
60	66	Salem, .	14	31.6	71,496 00	2,086 47	73,582 47	5,140	-
99	67	Tyngsborough, .	14	23.2	1,150 00	73 98	1,223 98	86	-
132	68	Attleborough, .	14	16.5	30,000 00	1,034 67	31,034 67	2,191	-
78	69	Granby, .	14	10.1	1,800 00	75 45	1,875 45	133	-
307	70	Barnardston, .	14	10	2,050 00	65 00	2,115 00	150	340 00
54	71	Reading, .	14	02	8,300 00	-	8,300 00	592	-
82	72	Lowell, .	13	92.5	158,119 15	-	158,119 15	11,355	-
69	73	Framingham, .	13	87	20,000 00	-	20,000 00	1,442	-
26	74	Littleton, .	13	77	2,400 00	147 42	2,547 42	185	-
91	75	Wakefield, .	13	65.9	16,500 00	-	16,500 00	1,208	-
85	76	Worcester, .	13	64.8	188,268 18	-	188,268 18	13,795	-

Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

For 1885-86.	For 1886-87.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
141	77	Middleborough,	\$13 58	\$11,000 00	—	\$11,000 00	810	—
63	78	Everett,	13 53.7	15,500 00	—	15,500 00	1,145	—
80	79	Foxborough,	13 53.1	5,200 00	\$347 57	5,547 57	410	—
113	80	Raynham,	13 52.4	3,000 00	259 40	3,259 40	241	—
53	81	Wrentham,	13 51.2	6,000 00	256 14	6,256 14	463	—
89	82	Lynn,	13 50.5	101,654 57	—	101,654 57	7,527	—
116	83	Gloucester,	13 48.4	50,769 00	—	50,769 00	3,765	—
79	84	Leominster,	13 47.9	11,700 00	—	11,700 00	868	—
164	85	Brockton,	13 42.8	41,164 18	717 94	41,882 12	3,119	—
44	86	Amherst,	13 40.5	7,791 01	265 33	8,056 34	601	—
83	87	Fitchburg,	13 39.6	40,142 96	45 00	40,187 96	3,000	\$26 00
55	88	North Reading,	13 38.2	1,800 00	140 40	1,940 40	145	—
126	89	Taunton,	13 34.9	52,500 00	—	52,500 00	3,933	—
117	90	East Bridgewater,	13 32.1	5,600 00	314 69	5,914 69	444	—
62	91	Medway,	13 31.4	5,000 00	791 39	5,791 39	435	50 00
64	92	Melrose,	13 27.4	18,000 00	—	18,000 00	1,356	—
102	93	Westborough,	13 25.1	10,985 22	—	10,985 22	829	—
92	94	Westfield,	13 20.6	21,500 00	—	21,500 00	1,628	—
93	95	Princeton,	13 17.9	2,000 00	56 00	2,056 00	156	—
58	96	Longmeadow,	13 16.5	3,300 00	162 50	3,462 50	263	—
67	97	Northborough,	13 15.8	3,500 00	—	3,500 00	266	—
120	98	Petersham,	13 08	1,600 00	296 53	1,896 53	145	—
59	99	Millis,	13 05.4	1,396 83	—	1,396 83	107	—
94	100	Brewster,	13 01.8	2,200 00	—	2,200 00	169	—
88	101	Greenfield,	12 97.8	11,809 87	—	11,809 87	910	—
71	102	Peabody,	12 96.9	24,751 46	876 21	25,627 67	1,976	—

SCHOOL RETURNS.

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146	103	Boxford,	.	.	12 96	1,400 00	51 50	1,451 50	112	-
122	104	Winthrop,	.	.	12 85.2	2,500 00	173 25	2,673 25	208	-
72	105	Upton,	.	.	12 82	4,153 59	-	4,153 59	324	60 00
75	106	Southborough,	.	.	12 74	4,300 00	133 52	4,433 52	348	-
181	107	Townsend,	.	.	12 69.8	3,500 00	195 00	3,695 00	291	-
112	108	Rehoboth,	.	.	12 69.3	3,200 00	303 19	3,503 19	276	-
109	109	Braintree,	.	.	12 68.1	8,400 00	539 80	8,939 80	705	-
160	110	Ipswich,	.	.	12 57.5	6,700 00	392 57	7,092 57	564	-
103	111	Chelsea,	.	.	12 55.5	60,315 57	-	60,315 57	4,804	-
119	112	Manchester,	.	.	12 55.2	3,000 00	-	3,000 00	239	-
57	113	Merrimac,	.	.	12 51.4	5,400 00	193 89	5,593 89	447	-
87	114	Ashby,	.	.	12 50	1,800 00	-	1,800 00	144	-
133	115	Danvers,	.	.	12 43.3	13,112 00	439 91	13,551 91	1,090	-
127	116	South Scituate,	.	.	12 37.5	2,750 00	232 28	2,982 28	241	-
106	117	Bradford,	.	.	12 36.6	6,600 00	250 88	6,850 88	554	-
194	118	Granville,	.	.	12 35.1	2,285 00	-	2,285 00	185	-
124	119	Easton,	.	.	12 31.3	8,931 34	574 49	9,505 83	772	-
81	120	Mattapoisett,	.	.	12 28.1	2,100 00	-	2,100 00	171	-
8	121	Boxborough,	.	.	12 26.5	686 82	-	686 82	56	-
114	122	Saugus,	.	.	12 24.7	6,319 54	-	6,319 54	516	-
130	123	Medfield,	.	.	12 22.2	2,200 00	-	2,200 00	180	-
77	124	West Stockbridge,	.	.	12 21.1	4,350 00	192 40	4,542 40	372	-
162	125	Leicester,	.	.	12 18.6	6,500 00	336 35	6,836 35	561	-
161	126	Warren,	.	.	12 16.6	9,100 00	-	9,100 00	748	-
172	127	West Newbury,	.	.	12 06.8	3,560 19	-	3,560 19	295	110 00
115	128	Westminster,	.	.	12 04	3,226 62	-	3,226 62	268	-
171	129	Ashburnham,	.	.	12 02.7	3,500 00	168 18	3,668 18	305	-
153	130	Sudbury,	.	.	12 01.8	2,000 00	151 20	2,151 20	179	-
184	131	North Brookfield,	.	.	11 98.2	9,000 00	370 20	9,370 20	782	-
123	132	Rockland,	.	.	11 97.6	10,000 00	-	10,000 00	835	-
96	133	Stockbridge,	.	.	11 85.9	4,625 00	-	4,625 00	390	-
195	134	Holliston,	.	.	11 83.7	5,800 00	-	5,800 00	490	-

Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

For 1885-86.	For 1886-87.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
183	135	Andover,	\$11 83.6	\$10,700 00	—	\$10,700 00	904	—
105	136	Marshfield,	11 81.3	2,500 00	\$217 00	2,717 00	230	—
180	137	Harwich,	11 79.9	5,000 00	144 37	5,144 37	436	—
159	138	Swansea,	11 79.2	2,500 00	—	2,500 00	212	—
131	139	Beverly,	11 78.6	18,781 52	736 66	19,518 18	1,656	—
95	140	Lunenburg,	11 77.1	1,700 00	148 00	1,848 00	157	—
187	141	Wayland,	11 73.7	4,500 00	347 46	4,847 46	413	—
118	142	Chehnsford,	11 69.8	5,000 00	357 48	5,357 48	458	\$60 00
128	143	Dighton,	11 68.7	3,000 00	202 13	3,202 13	274	—
150	144	Sherborn,	11 68.7	2,125 00	95 45	2,220 45	190	—
151	145	Milford,	11 66.7	17,764 61	318 89	18,083 50	1,550	—
135	146	Great Barrington,	11 64.9	9,600 00	184 95	9,784 95	840	—
177	147	Duxbury,	11 62.9	3,000 00	291 00	3,291 00	283	—
203	148	Brookfield,	11 62.3	5,700 00	181 22	5,881 22	506	56 38
142	149	Uxbridge,	11 59.2	6,700 00	—	6,700 00	578	—
192	150	Marion,	11 58.5	1,900 00	—	1,900 00	164	—
224	151	West Brookfield,	11 58.3	3,000 00	—	3,000 00	259	—
129	152	Stow,	11 54.7	2,000 00	136 19	2,136 19	185	—
205	153	Charlton,	11 47	3,200 00	—	3,200 00	279	—
157	154	Clinton,	11 44	20,650 00	—	20,650 00	1,805	—
101	155	Mansfield,	11 43.8	5,100 00	447 49	5,547 49	485	—
111	156	Dunstable,	11 42.9	800 00	—	800 00	70	—
216	157	Hamilton,	11 42.9	1,200 00	—	1,200 00	105	—
204	158	Dennis,	11 42	5,500 00	84 60	5,584 60	489	—
90	159	Ashland,	11 41.6	5,000 00	—	5,000 00	438	—
149	160	Georgetown,	11 40.9	5,250 00	180 57	5,430 57	476	—

167	Maynard,	11	40.7	6,000 00	-	6,000 00	526	-
110	Northampton,	11	40.1	26,378 50	641 21	27,019 71	2,370	-
56	Quincy,	11	38.7	35,163 87	-	35,163 87	3,088	-
98	Shelburne,	11	37.7	3,000 00	128 80	3,128 80	275	-
169	Lee,	11	36.4	8,205 12	-	8,205 12	722	-
134	Methuen,	11	32.1	9,000 00	-	9,000 00	795	-
148	Woburn,	11	28.6	29,760 41	-	29,760 41	2,637	-
145	Sharon,	11	24.7	2,400 00	153 00	2,553 00	227	-
196	Plympton,	11	23.8	800 00	144 00	944 00	84	-
143	Northbridge,	11	20.3	8,500 00	272 16	8,772 16	783	-
201	Enfield,	11	18.4	1,700 00	-	1,700 00	152	-
139	Fall River,	11	18.1	135,188 16	-	135,188 16	12,091	-
174	Wilmington,	11	14.7	1,750 00	-	1,750 00	157	-
213	Salisbury,	11	05.6	8,430 00	259 94	8,689 94	786	-
165	Hanover,	11	05	3,450 00	196 35	3,646 35	330	-
158	Montgomery,	10	99.6	500 00	38 80	538 80	49	25 00
176	Somerset,	10	98	4,774 31	243 74	5,018 05	457	-
125	Pittsfield,	10	96.3	31,288 38	-	31,288 38	2,854	-
210	Westford,	10	94.8	4,000 00	160 15	4,160 15	380	-
207	Mendon,	10	92.7	1,500 00	117 13	1,617 13	148	-
229	Truro,	10	90.9	1,800 00	-	1,800 00	165	-
179	Hudson,	10	90.2	8,600 00	175 76	8,775 76	805	-
214	Hopkinton,	10	85.2	8,100 00	386 45	8,486 45	782	-
156	West Springfield,	10	84.8	9,350 00	391 38	9,741 38	898	-
206	Grafton,	10	84.7	9,600 00	-	9,600 00	885	-
238	Wilbraham,	10	83.4	2,500 00	100 25	2,600 25	240	-
152	Monson,	10	81.3	6,500 00	355 16	6,855 16	634	-
235	Wareham,	10	74.1	6,500 00	341 98	6,841 98	637	-
202	Pepperell,	10	72.3	4,600 00	-	4,600 00	429	-
178	Marblehead,	10	69.3	14,616 75	770 21	15,386 96	1,439	-
242	Wendell,	10	62.8	700 00	33 35	733 35	69	-
104	Edgartown,	10	61.7	1,700 00	41 25	1,741 25	164	-

Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

For 1885-86.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
175	Lawrence,	\$10 60.5	\$77,175 66	—	\$77,175 66	7,277	—
185	Orange,	10 57.4	6,725 00	—	6,725 00	636	—
168	Yarmouth,	10 54.5	3,200 00	\$163 70	3,363 70	319	—
217	Gardner,	10 53.5	13,000 00	—	13,000 00	1,234	—
166	Bellingham,	10 53.1	1,800 00	485 13	2,285 13	217	—
155	Essex,	10 49	3,000 00	—	3,000 00	286	—
221	Dartmouth,	10 47	5,000 00	297 79	5,297 79	506	—
138	South Hadley,	10 46.9	7,000 00	202 46	7,202 46	688	—
189	Rochester,	10 42.1	1,600 00	140 26	1,740 26	167	—
258	Shirley,	10 40.7	2,200 00	99 90	2,299 90	221	—
277	Williamstown,	10 31.3	5,600 00	—	5,600 00	543	—
271	Athol,	10 29.9	8,000 00	331 51	8,331 51	809	—
232	North Adams,	10 29.9	28,158 90	359 90	28,518 80	2,769	—
226	Templeton,	10 28.3	4,700 00	174 02	4,874 02	474	—
209	Palmer,	10 26.1	11,600 00	343 32	11,943 32	1,164	—
163	Wenham,	10 26	1,400 00	139 03	1,539 03	150	—
191	Tewksbury,	10 24.6	2,500 00	—	2,500 00	244	—
198	Boylston,	10 24.1	1,700 00	—	1,700 00	166	—
140	Paxton,	10 22.7	900 00	—	900 00	88	—
170	Lenox,	10 22.2	4,600 00	—	4,600 00	450	—
311	BillERICA,	10 18.8	3,800 00	—	3,800 00	373	—
108	Greenwich,	10 14.7	700 00	30 60	730 60	72	—
154	Carlisle,	10 10.6	800 00	69 12	869 12	86	—
247	Whitman,	10 09.8	6,000 00	442 42	6,442 42	638	—
208	Acushnet,	10 07	1,700 00	152 95	1,852 95	184	—
173	Dalton,	10 02.2	4,500 00	—	4,500 00	449	—

SCHOOL RETURNS.

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186	219	Easthampton,	.	.	10	01.4	7,650 00	180 76	7,830 76	782	-
215	220	Ayer,	.	.	9	98.2	4,200 00	192 24	4,392 24	440	-
230	221	Provincetown,	.	.	9	85.2	8,000 00	-	8,000 00	812	-
219	222	Douglas,	.	.	9	78	4,000 00	-	4,000 00	409	-
231	223	Sheffield,	.	.	9	74.2	3,500 00	250 84	3,750 84	385	-
244	224	Winchendon,	.	.	9	72.5	6,291 94	-	6,291 94	647	-
218	225	West Bridgewater,	.	.	9	70.9	3,000 00	-	3,000 00	309	-
107	226	Middleton,	.	.	9	67.7	1,200 00	-	1,200 00	124	-
197	227	Ludlow,	.	.	9	66.1	3,500 00	171 20	3,671 20	380	\$1,036 00
248	228	Holyoke,	.	.	9	60.8	57,927 11	891 35	58,818 46	6,122	-
324	229	Gill,	.	.	9	59.5	1,100 00	61 00	1,161 00	121	-
233	230	Seituate,	.	.	9	58.5	4,500 00	292 54	4,792 54	500	-
269	231	Marlborough,	.	.	9	55.2	23,078 30	-	23,078 30	2,416	-
274	232	Rockport,	.	.	9	55	6,827 89	-	6,827 89	715	-
319	233	Sutton,	.	.	9	50.7	4,500 00	234 44	4,734 44	498	-
211	234	Millbury,	.	.	9	44.5	8,000 00	-	8,000 00	847	-
292	235	Middlefield,	.	.	9	42.3	800 00	85 75	875 75	94	-
252	236	Burlington,	.	.	9	40.6	1,200 00	88 56	1,288 56	137	-
223	237	Chatham,	.	.	9	37.5	3,300 00	-	3,300 00	352	-
234	238	Hubbardston,	.	.	9	30.2	2,000 00	-	2,000 00	215	-
236	239	Freetown,	.	.	9	29.3	2,000 00	174 56	2,174 56	234	-
212	240	Berkley,	.	.	9	28.8	1,200 00	137 40	1,337 40	144	-
241	241	Groveland,	.	.	9	28.2	3,750 00	-	3,750 00	404	-
308	242	Rutland,	.	.	9	27.6	1,800 00	36 57	1,836 57	198	-
250	243	Phillipston,	.	.	9	19.5	800 00	-	800 00	87	-
281	244	Royalston,	.	.	9	17.5	1,500 00	114 85	1,614 85	176	-
239	245	Spencer,	.	.	9	16.8	16,750 00	-	16,750 00	1,827	-
193	246	Sandisfield,	.	.	9	11.7	2,000 00	42 15	2,042 15	224	50 00
188	247	Lakeville,	.	.	9	09.1	1,500 00	-	1,500 00	165	-
228	248	Eastham,	.	.	9	06.2	800 00	60 91	860 91	95	-
276	249	New Salem,	.	.	9	01.1	1,100 00	35 40	1,135 40	126	-
222	250	Chicopee,	.	.	9	00.5	20,756 52	-	20,756 52	2,305	137 00

Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

For 1885-86.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
251	Hardwick,	\$8 91	\$4,300 00	\$226 20	\$4,526 20	508	—
240	Holden,	8 90.8	4,914 63	287 59	5,202 22	584	—
225	Dracut,	8 87.8	3,000 00	125 13	3,125 13	352	—
294	Oakham,	8 86.5	850 00	107 46	957 46	108	—
263	Ware,	8 85	11,000 00	—	11,000 00	1,243	—
257	Topsfield,	8 83.4	1,400 00	145 95	1,545 95	175	—
246	Stoughton,	8 81.6	8,710 59	—	8,710 59	988	—
295	Monterey,	8 79.6	800 00	88 43	888 43	101	—
253	Deerfield,	8 78.5	5,000 00	174 46	5,174 46	589	—
260	Southwick,	8 76.4	1,500 00	86 35	1,586 35	181	—
121	Peru,	8 75.5	450 00	22 75	472 75	54	—
270	Nantucket,	8 75.4	4,902 20	—	4,902 20	560	—
256	Hawley,	8 73.8	900 00	—	900 00	103	—
264	Westhampton,	8 72.5	866 00	32 69	898 69	103	—
144	Amesbury,	8 71.9	6,200 00	173 29	6,373 29	731	—
237	Northfield,	8 71.7	2,200 00	110 00	2,310 00	265	—
137	Cottage City,	8 68.1	1,250 00	—	1,250 00	144	—
259	Westport,	8 66.3	4,000 00	296 70	4,296 70	496	\$56 25
265	Hadley,	8 65.7	2,900 00	—	2,900 00	335	—
268	Sturbridge,	8 64.9	3,200 00	—	3,200 00	370	—
227	Norton,	8 60.8	2,500 00	271 84	2,771 84	322	—
279	Conway,	8 59.1	2,500 00	—	2,500 00	291	—
266	Southampton,	8 58.8	1,450 00	87 19	1,537 19	179	—
261	Hanson,	8 58.3	1,700 00	153 82	1,853 82	216	—
283	Tolland,	8 58.2	500 00	40 66	540 66	63	—
254	Belchertown,	8 55.9	3,800 00	179 89	3,979 89	465	—

SCHOOL RETURNS.

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272	277	Adams,	8	53.6	15,364	22	15,364	22	1,800
298	278	Seekonk,	8	53	1,700	00	1,944	82	228
278	279	Dana,	8	52.5	700	00	775	76	91
245	280	Worthington,	8	47.5	1,000	00	1,067	90	126
316	281	Cheshire,	8	41.8	2,500	00	2,500	00	297
147	282	Ashfield,	8	38.1	1,475	00	1,475	00	176
267	283	Rowley,	8	33.4	1,833	47	1,833	47	220
322	284	Washington,	8	31.3	700	00	748	15	90
286	285	Warwick,	8	26	908	60	908	60	110
273	286	West Boylston,	8	11.3	4,600	00	4,600	00	567
290	287	Newburyport,	8	04.4	20,231	62	20,231	62	2,515
275	288	Brimfield,	8	00	1,400	00	1,400	00	175
345	289	Hancock,	7	96.5	900	00	900	00	113
243	290	Pembroke,	7	93	1,500	00	1,593	99	201
262	291	Sunderland,	7	91.4	1,100	00	1,100	00	139
255	292	Franklin,	7	91	6,500	00	6,873	77	869
299	293	Hampden,	7	89.7	1,300	00	1,405	65	178
305	294	Otis,	7	89.5	900	00	900	00	114
293	295	Southbridge,	7	89.3	11,200	00	11,200	00	1,419
287	296	Pelham,	7	87.3	700	00	763	71	97
291	297	Lynnfield,	7	82.7	800	00	900	14	115
182	298	Egremont,	7	73.8	950	00	967	25	125
285	299	Hinsdale,	7	69.7	3,225	00	3,225	00	419
301	300	Agawam,	7	67.7	3,250	00	3,424	00	446
306	301	Montague,	7	61.4	10,279	16	10,279	16	1,350
328	302	Russell,	7	53.6	1,000	00	1,077	64	143
289	303	Chilmark,	7	50	450	00	450	00	60
323	304	Buckland,	7	48.3	2,200	00	2,200	00	294
314	305	Carver,	7	48.1	1,200	00	1,309	21	175
297	306	Williamsburg,	7	44.8	3,000	00	3,187	75	428
317	307	Chester,	7	44.2	1,600	00	1,600	00	215
342	308	Huntington,	7	44.1	1,500	00	1,629	52	219

Showing the Comparative Amount of Money appropriated by the different Towns in the State — Concluded.

For 1885-86.	For 1886-87.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
303	309	Berlin, .	\$7 39.5	\$1,100 00	\$112 83	\$1,212 83	164	—
318	310	Tyringham, .	7 36.8	700 00	—	700 00	95	—
249	311	Erving, .	7 30.8	1,200 00	35 05	1,235 05	169	—
315	312	Becket, .	7 29.8	1,100 00	118 69	1,218 69	167	—
312	313	Colrain, .	7 27.3	2,400 00	—	2,400 00	330	—
296	314	Leyden, .	7 27.3	800 00	—	800 00	110	—
288	315	Norfolk, .	7 21.5	1,250 00	55 88	1,305 88	181	—
330	316	Florida, .	7 17.7	933 00	—	933 00	130	—
332	317	Rowe, .	7 15.3	700 00	29 65	729 65	102	—
337	318	Heath, .	7 07.4	800 00	27 60	827 60	117	—
326	319	Lanesborough, .	7 05.9	1,800 00	—	1,800 00	255	—
309	320	Chesterfield, .	7 03.1	900 00	—	900 00	128	\$7 00
320	321	Leverett, .	6 91.3	800 00	78 00	878 00	127	7 00
280	322	Blackstone, .	6 78.3	7,500 00	327 21	7,827 21	1,154	—
321	323	New Marlborough, .	6 65.1	2,000 00	68 50	2,068 50	311	—
300	324	Hatfield, .	6 64.1	1,700 00	—	1,700 00	256	—
304	325	Charlemont, .	6 63.2	1,000 00	41 20	1,041 20	157	—
220	326	Halifax, .	6 54.2	700 00	—	700 00	107	—
339	327	Shutesbury, .	6 32.6	600 00	45 25	645 25	102	—
325	328	Cummington, .	6 28.3	800 00	48 20	848 20	135	—
333	329	Alford, .	6 20.3	372 20	—	372 20	60	—
282	330	Dudley, .	6 15.7	3,500 00	182 14	3,682 14	598	—
284	331	Windsor, .	6 09.5	700 00	49 65	749 65	123	—
346	332	Monroe, .	6 06.1	200 00	—	200 00	33	—
302	333	Blandford, .	6 02.2	1,147 55	86 90	1,234 45	205	—
331	334	Whately, .	5 97	1,200 00	—	1,200 00	201	—

341	Holland,	.	.	5 79.3	200 00	31 73	231 73	40	-
327	Prescott,	.	.	5 78	500 00	25 99	525 99	91	-
336	Newbury,	.	.	5 71.8	1,700 00	118 24	1,818 24	318	-
310	Plainfield,	.	.	5 63	350 00	27 24	377 24	67	-
334	Clarksburg,	.	.	5 49.3	700 00	30 50	730 50	133	-
343	Auburn,	.	.	5 48.5	1,300 00	-	1,300 00	237	-
344	Wales, .	.	.	5 40.5	800 00	-	800 00	148	-
338	Goshen,	.	.	5 32.2	314 00	-	314 00	59	-
329	Savoy, .	.	.	5 21.1	600 00	61 85	661 85	127	-
313	Richmond,	.	.	5 10.5	1,000 00	51 72	1,051 72	206	-
335	Webster,	.	.	4 85.9	5,850 00	335 20	6,185 20	1,273	-
340	Mount Washington,	.	.	4 29.4	100 00	11 65	111 65	26	-
19	Mashpee,	.	.	4 16.7	200 00	-	200 00	48	-
348	New Ashford,	.	.	3 77.3	84 00	21 65	105 65	28	-
347	Gay Head,	.	.	-	-	-	-	34	-

GRADUATED TABLES — (COUNTY TABLES) — FIRST SERIES.

Table showing the Comparative Amount of Money appropriated by the different Towns in each of the Counties in the State for the Education of each Child in the Town, between the Ages of 5 and 15 Years.

BARNSTABLE COUNTY.

For 1885-86.	For 1886-87.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
3	1	BOURNE.	\$18 97	\$4,520 00	\$260 55	\$4,780 55	252	—
4	2	Barnstable.	17 26.3	11,000 00	341 64	11,341 64	657	—
6	3	Wellfleet.	16 12.9	4,000 00	—	4,000 00	248	—
5	4	Sandwich.	15 87.5	5,800 00	327 67	6,127 67	386	—
2	5	Falmouth.	15 74.2	6,000 00	391 42	6,391 42	406	—
7	6	Orleans.	14 52.6	2,200 00	65 98	2,265 98	156	—
8	7	Brewster.	13 01.8	2,200 00	—	2,200 00	169	—
10	8	Harwich.	11 79.9	5,000 00	144 37	5,144 37	436	—
11	9	Dennis.	11 42	5,500 00	84 60	5,584 60	489	—
14	10	Truro.	10 90.9	1,800 00	—	1,800 00	165	—
9	11	Yarmouth.	10 54.5	3,200 00	163 70	3,363 70	319	—
15	12	Provincetown.	9 85.2	8,000 00	—	8,000 00	812	—
12	13	Chatham.	9 37.5	3,300 00	—	3,300 00	352	—
13	14	Eastham.	9 06.2	800 00	60 91	860 91	95	—
1	15	Mashpee.	4 16.7	200 00	—	200 00	48	—

BERKSHIRE COUNTY.

1	1	WEST STOCKBRIDGE.	\$12 21.1	\$4,350 00	\$192 40	\$4,542 40	372	—
2	2	Stockbridge.	11 85.9	4,625 00	—	4,625 00	390	—

SCHOOL RETURNS.

XCV

5	3	Great Barrington,	.	.	11 64.9	9,600 00	184 95	9,784 95	840	-
6	4	Lee, . . .	.	.	11 36.4	8,205 12	-	8,205 12	722	-
4	5	Pittsfield, . . .	.	.	10 96.3	31,288 38	-	31,288 38	2,854	-
14	6	Williamstown, . . .	.	.	10 31.3	5,600 00	-	5,600 00	543	-
12	7	North Adams, . . .	.	.	10 29.9	28,158 90	359 90	28,518 80	2,769	-
7	8	Lenox, . . .	.	.	10 22.2	4,600 00	-	4,600 00	450	-
8	9	Dalton, . . .	.	.	10 02.2	4,500 00	-	4,500 00	449	-
11	10	Sheffield, . . .	.	.	9 74.2	3,500 00	250 84	3,750 84	385	-
10	11	Sandisfield, . . .	.	.	9 11.7	2,000 00	42 15	2,042 15	224	-
17	12	Monterey, . . .	.	.	8 79.6	800 00	88 43	888 43	101	-
3	13	Peru, . . .	.	.	8 75.5	450 00	22 75	472 75	54	-
13	14	Adams, . . .	.	.	8 53.6	15,364 22	-	15,364 22	1,800	\$50 00
21	15	Cheshire, . . .	.	.	8 41.8	2,500 00	-	2,500 00	297	-
24	16	Washington, . . .	.	.	8 31.3	700 00	48 15	748 15	90	-
31	17	Hancock, . . .	.	.	7 96.5	900 00	-	900 00	113	-
18	18	Otis, . . .	.	.	7 89.5	900 00	-	900 00	114	-
9	19	Egremont, . . .	.	.	7 73.8	950 00	17 25	967 25	125	-
16	20	Hinsdale, . . .	.	.	7 69.7	3,225 00	-	3,225 00	419	-
22	21	Tyringham, . . .	.	.	7 36.8	700 00	-	700 00	95	-
20	22	Becket, . . .	.	.	7 29.8	1,100 00	118 69	1,218 69	167	-
27	23	Florida, . . .	.	.	7 17.7	933 00	-	933 00	130	-
25	24	Lanesborough, . . .	.	.	7 05.9	1,800 00	-	1,800 00	255	-
23	25	New Marlborough, . . .	.	.	6 65.1	2,000 00	68 50	2,068 50	311	-
28	26	Alford, . . .	.	.	6 20.3	372 20	-	372 20	60	-
15	27	Windsor, . . .	.	.	6 09.5	700 00	49 65	749 65	123	-
29	28	Clarksburg, . . .	.	.	5 49.3	700 00	30 50	730 50	133	-
26	29	Savoy, . . .	.	.	5 21.1	600 00	61 85	661 85	127	-
19	30	Richmond, . . .	.	.	5 10.5	1,000 00	51 72	1,051 72	206	-
30	31	Mount Washington, . . .	.	.	4 29.4	100 00	11 65	111 65	26	-
32	32	New Ashford, . . .	.	.	3 77.3	84 00	21 65	105 65	28	-

BRISTOL COUNTY.

	For 1885-86.	For 1886-87.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age	Amount contributed for board and fuel.
1	NEW BEDFORD,	1		\$17 12.9	\$87,106 18	\$782 52	\$87,888 70	5,131	-
2	Fairhaven,	2		16 38.3	6,500 00	331 83	6,831 83	417	-
9	Attleborough,	3		14 16.5	30,000 00	1,034 67	31,034 67	2,191	-
5	Raynham,	4		13 52.4	3,000 00	259 40	3,259 40	241	-
7	Taunton,	5		13 34.9	52,500 00	-	52,500 00	3,933	-
4	Rehoboth,	6		12 69.3	3,200 00	303 19	3,503 19	276	-
6	Easton,	7		12 31.3	8,931 34	574 49	9,505 83	772	-
11	Swansea,	8		11 79.2	2,500 00	-	2,500 00	212	-
8	Dighton,	9		11 68.7	3,000 00	202 13	3,202 13	274	-
3	Mansfield,	10		11 43.8	5,100 00	447 49	5,547 49	485	-
10	Fall River,	11		11 18.1	135,188 16	-	135,188 16	12,091	-
12	Somerset,	12		10 98	4,774 31	243 74	5,018 05	457	-
15	Dartmouth,	13		10 47	5,000 00	297 79	5,297 79	506	-
13	Acushnet,	14		10 07	1,700 00	152 95	1,852 95	184	-
17	Freetown,	15		9 29.3	2,000 00	174 56	2,174 56	234	-
14	Berkley,	16		9 28.8	1,200 00	137 40	1,337 40	144	-
18	Westport,	17		8 66.3	4,000 00	296 70	4,296 70	496	-
16	Norton,	18		8 60.8	2,500 00	271 84	2,771 84	322	-
19	Seekonk,	19		8 53.	1,700 00	244 82	1,944 82	228	-

DUKES COUNTY.

3	GOSNOLD,	1		\$14 34.6	\$200 00	\$15 19	\$215 19	15	-
1	Tisbury,	2		14 34.4	2,338 00	71 72	2,409 72	168	\$15 00

SCHOOL RETURNS.

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2	3	Edgartown, .	10 61.7	1,700 00	41 25	1,741 25	164	—
4	4	Cottage City, .	8 68.1	1,250 00	—	1,250 00	144	—
5	5	Chilmark, .	7 50	450 00	—	450 00	60	—
6	6	Gay Head, .	—	—	—	—	34	—

ESSEX COUNTY.

1	NAME.	\$27	\$3,819	32	—	\$3,819	32	140
2	Swampscott,	18 00.2	6,246	85	—	6,246	85	347
3	Haverhill,	14 89.2	58,331	65	—	58,331	65	3,917
4	North Andover,	14 39.1	9,800	00	—	9,800	00	681
5	Salem,	14 31.6	71,496	00	\$2,086	73,582	47	5,140
6	Lynn,	13 50.5	101,654	57	—	101,654	57	7,527
7	Gloucester,	13 48.4	50,769	00	—	50,769	00	3,765
8	Peabody,	12 96.9	24,751	46	876	25,627	67	1,976
9	Boxford,	12 96	1,400	00	51	1,451	50	112
10	Ipswich,	12 57.5	6,700	00	392	7,092	57	564
11	Manchester,	12 55.2	3,000	00	—	3,000	00	239
12	Merrimac,	12 51.4	5,400	00	193	5,593	89	447
13	Danvers,	12 43.3	13,112	00	439	13,551	91	1,090
14	Bradford,	12 36.6	6,600	00	250	6,850	88	554
15	Saugus,	12 24.7	6,319	54	—	6,319	54	516
16	West Newbury,	12 06.8	3,560	19	—	3,560	19	295
17	Andover,	11 83.6	10,700	00	—	10,700	00	904
18	Beverly,	11 78.6	18,781	52	736	19,518	18	1,656
19	Hamilton,	11 42.9	1,200	00	—	1,200	00	105
20	Georgetown,	11 40.9	5,250	00	180	5,430	57	476
21	Methuen,	11 32.1	9,000	00	—	9,000	00	795
22	Salisbury,	11 05.6	8,430	00	259	8,689	94	786
23	Marblehead,	10 69.3	14,616	75	770	15,386	96	1,439
24	Lawrence,	10 60.5	77,175	66	—	77,175	66	7,277
1								\$110 00

ESSEX COUNTY — CONCLUDED.

	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the sup- port of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contrib- uted for board and fuel.
For 1885-86.							
20	Essex,	\$10 49	\$3,000 00	—	\$3,000 00	286	—
22	Wenham,	10 26	1,400 00	\$139 03	1,539 03	150	—
10	Middleton,	9 67.7	1,200 00	—	1,200 00	124	—
32	Rockport,	9 55	6,827 89	—	6,827 89	715	—
29	Groveland,	9 28.2	3,750 00	—	3,750 00	404	—
30	Topsfield,	8 83.4	1,400 00	145 95	1,545 95	175	—
17	Amesbury,	8 71.9	6,200 00	173 29	6,373 29	731	—
31	Rowley,	8 33.4	1,833 47	—	1,833 47	220	—
33	Newburyport,	8 04.4	20,231 62	—	20,231 62	2,515	—
34	Lynnfield,	7 82.7	800 00	100 14	900 14	115	—
35	Newbury,	5 71.8	1,700 00	118 24	1,818 24	318	—

FRANKLIN COUNTY.

17	BERNARDSTON,	\$14 10	\$2,050 00	\$65 00	\$2,115 00	150	\$340 00
1	Greenfield,	12 97.8	11,809 87	—	11,809 87	910	—
2	Shelburne,	11 37.7	3,000 00	128 80	3,128 80	275	—
6	Wendell,	10 62.8	700 00	33 35	733 35	69	—
4	Orange,	10 57.4	6,725 00	—	6,725 00	636	—
21	Gill,	9 59.5	1,100 00	61 00	1,161 00	121	—
11	New Salem,	9 01.1	1,100 00	35 40	1,135 40	126	—
8	Deerfield,	8 78.5	5,000 00	174 46	5,174 46	589	—
9	Hawley,	8 73.8	900 00	—	900 00	103	—
5	Northfield,	8 71.7	2,200 00	110 00	2,310 00	265	—

SCHOOL RETURNS.

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12	11	Conway,	8 59.1	2,500 00	-	2,500 00	291	-
3	12	Ashfield,	8 38.1	1,475 00	-	1,475 00	176	-
13	13	Warwick,	8 26	908 60	-	908 60	110	-
10	14	Sunderland,	7 91.4	1,100 00	-	1,100 00	139	-
16	15	Montague,	7 61.4	10,279 16	-	10,279 16	1,350	150 00
20	16	Buckland,	7 48.3	2,200 00	-	2,200 00	294	.
7	17	Erving,	7 30.8	1,200 00	35 05	1,235 05	169	-
18	18	Colerain,	7 27.3	2,400 00	-	2,400 00	330	-
14	19	Leyden,	7 27.3	800 00	-	800 00	110	-
23	20	Rowe,	7 15.3	700 00	29 65	729 65	102	-
24	21	Heath,	7 07.4	800 00	27 60	827 60	117	-
19	22	Leverett,	6 91.3	800 00	78 00	878 00	127	7 00
15	23	Charlemont,	6 63.2	1,000 00	41 20	1,041 20	157	-
25	24	Shutesbury,	6 32.6	600 00	45 25	645 25	102	-
26	25	Monroe,	6 06.1	200 00	-	200 00	33	-
22	26	Whately,	5 97	1,200 00	-	1,200 00	201	-

HAMPDEN COUNTY.

1	1	SPRINGFIELD,	\$15 18.4	\$98,270 00	-	\$98,270 00	6,472	-
3	2	Westfield,	13 20.6	21,500 00	-	21,500 00	1,628	-
2	3	Longmeadow,	13 16.5	3,300 00	\$162 50	3,462 50	263	-
7	4	Granville,	12 35.1	2,285 00	-	2,285 00	185	-
6	5	Montgomery,	10 99.6	500 00	38 80	538 80	49	-
5	6	West Springfield,	10 84.8	9,350 00	391 38	9,741 38	898	-
11	7	Wilbraham,	10 83.4	2,500 00	100 25	2,600 25	240	-
4	8	Monson,	10 81.3	6,500 00	355 16	6,855 16	634	-
9	9	Palmer,	10 26.1	11,600 00	343 32	11,943 32	1,164	-
8	10	Ludlow,	9 66.1	3,500 00	171 20	3,671 20	380	\$1,036 00
12	11	Holyoke,	9 60.8	57,927 11	891 35	58,818 46	6,122	-
10	12	Chicopee,	9 00.5	20,756 52	-	20,756 52	2,305	137 00

BOARD OF EDUCATION.

HAMPDEN COUNTY — CONCLUDED.

For 1885-86.	For 1886-87.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
13	13	Southwick,	\$8 76.4	\$1,500 00	\$86 35	\$1,586 35	181	—
15	14	Tolland,	8 58.2	500 00	40 66	540 66	63	—
14	15	Brimfield,	8 00	1,400 00	—	1,400 00	175	—
16	16	Hampden,	7 89.7	1,300 00	105. 65	1,405 65	178	—
17	17	Agawam,	7 67.7	3,250 00	174 00	1,424 00	446	—
20	18	Russell,	7 53.6	1,000 00	77 64	1,077 64	143	—
19	19	Chester,	7 44.2	1,600 00	—	1,600 00	215	—
18	20	Blandford,	6 02.2	1,147 55	86 90	1,234 45	205	—
21	21	Holland,	5 79.3	200 00	31 73	231 73	40	—
22	22	Wales,	5 40	800 00	—	800 00	148	—

HAMPSHIRE COUNTY.

For 1885-86.	For 1886-87.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
2	1	GRANBY,	\$14 10.1	\$1,800 00	\$75 45	\$1,875 45	133	—
1	2	Amherst,	13 40.5	7,791 01	265 33	8,056 34	601	—
4	3	Northampton,	11 40.1	26,378 50	641 21	27,019 71	2,370	—
7	4	Enfield,	11 18.4	1,700 00	—	1,700 00	152	—
5	5	South Hadley,	10 46.9	7,000 00	202 46	7,202 46	688	—
3	6	Greenwich,	10 14.7	700 00	30 60	730 60	72	—
6	7	Easthampton,	10 01.4	7,650 00	180 76	7,830 76	782	—
15	8	Middlefield,	9 42.3	800 00	85 75	885 75	94	—
10	9	Ware,	8 85	11,000 00	—	11,000 00	1,243	—
11	10	Westhampton,	8 72.5	866 00	32 69	898 69	103	—

12	Hadley,	8 65.7	2,900 00	-	2,900 00	335	-
13	Southampton,	8 58.8	1,450 00	87 19	1,537 19	179	-
9	Belchertown,	8 55.9	3,800 00	179 89	3,979 89	465	-
8	Worthington,	8 47.5	1,000 00	67 90	1,067 90	126	-
14	Pelham,	7 87.3	700 00	63 71	763 71	97	-
16	Williamsburg,	7 44.8	3,000 00	187 75	3,187 75	428	-
23	Huntington,	7 44.1	1,500 00	129 52	1,629 52	219	-
18	Chesterfield,	7 03.1	900 00	-	900 00	128	\$7 00
17	Hatfield,	6 64.1	1,700 00	-	1,700 00	256	-
20	Cummington,	6 28.3	800 00	48 20	848 20	135	-
21	Prescott,	5 78	500 00	25 99	525 99	91	-
19	Plainfield,	5 63	350 00	27 24	377 24	67	-
22	Goshen,	5 32.2	314 00	-	314 00	59	-

MIDDLESEX COUNTY.

1	NEWTON,	\$25 57.6	\$94,724 21	\$2,081 23	\$96,805 44	3,785	-
10	Belmont,	22 83.3	7,329 30	-	7,329 30	321	-
8	Lexington,	22 36.4	10,287 56	-	10,287 56	460	-
2	Winchester,	21 34.1	17,500 00	-	17,500 00	820	-
3	Weston,	20 96.8	5,200 00	-	5,200 00	248	-
14	Bedford,	20 56	2,500 00	152 28	2,652 28	129	-
5	Watertown,	19 43.2	21,200 00	-	21,200 00	1,091	-
6	Concord,	19 38.4	11,650 00	-	11,650 00	601	-
9	Arlington,	19 14.1	18,279 40	-	18,279 40	955	-
7	Waltham,	19 00.3	47,280 38	-	47,280 38	2,488	-
12	Groton,	18 31	5,200 00	-	5,200 00	284	-
13	Medford,	18 13.7	28,258 19	-	28,258 19	1,558	-
18	Somerville,	16 97.3	89,891 52	-	89,891 52	5,296	-
15	Acton,	16 58.4	4,099 69	195 48	4,295 17	259	-
17	Cambridge,	16 11.5	179,373 00	-	179,373 00	11,131	\$305 00

BOARD OF EDUCATION.

MIDDLESEX COUNTY — CONCLUDED.

For 1885-86.	For 1886-87.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
24	16	Malden,	\$16 07.7	\$42,267 07	—	\$42,267 07	2,629	—
19	17	Stoneham,	14 85	13,900 00	—	13,900 00	936	—
27	18	Natick,	14 41.7	22,000 00	—	22,000 00	1,526	—
16	19	Lincoln,	14 36.8	2,500 00	—	2,500 00	174	—
31	20	Tyngsborough,	14 23.2	1,150 00	\$73 98	1,223 98	86	—
20	21	Reading,	14 02	8,300 00	—	8,300 00	592	—
26	22	Lowell,	13 92.5	158,119 15	—	158,119 15	11,355	—
25	23	Framingham,	13 87	20,000 00	—	20,000 00	1,442	—
11	24	Littleton,	13 77	2,400 00	147 42	2,547 42	185	—
30	25	Wakefield,	13 65.9	16,500 00	—	16,500 00	1,208	—
22	26	Everett,	13 53.7	15,500 00	—	15,500 00	1,145	—
21	27	North Reading,	13 38.2	1,800 00	140 40	1,940 40	145	\$26 00
23	28	Melrose,	13 27.4	18,000 00	—	18,000 00	1,356	—
42	29	Townsend,	12 69.8	3,500 00	195 00	3,695 00	291	—
28	30	Ashby,	12 50	1,800 00	—	1,800 00	144	—
4	31	Boxborough,	12 26.5	686 82	—	686 82	56	—
37	32	Sudbury,	12 01.8	2,000 00	151 20	2,151 20	179	—
45	33	Holliston,	11 83.7	5,800 00	—	5,800 00	490	—
43	34	Wayland,	11 73.7	4,500 00	347 46	4,847 46	413	—
33	35	Chelmsford,	11 69.8	5,000 00	357 48	5,357 48	458	60 00
36	36	Sherborn,	11 68.7	2,125 00	95 45	2,220 45	190	—
34	37	Stow,	11 54.7	2,000 00	136 19	2,136 19	185	—
32	38	Dunstable,	11 42.9	800 00	—	800 00	70	—
29	39	Ashland,	11 41.6	5,000 00	—	5,000 00	438	—
39	40	Maynard,	11 40.7	6,000 00	—	6,000 00	526	—
35	41	Woburn,	11 28.6	29,760 41	—	29,760 41	2,637	—

40	42	Wilmington,	.	.	11	14.7	1,750 00	-	1,750 00	157
47	43	Westford,	.	.	10	94.8	4,000 00	160 15	4,160 15	380
41	44	Hudson,	.	.	10	90.2	8,600 00	175 76	8,775 76	805
48	45	Hopkinton,	.	.	10	85.2	8,100 00	386 45	8,486 45	782
46	46	Pepperell,	.	.	10	72.3	4,600 00	-	4,600 00	429
52	47	Shirley,	.	.	10	40.7	2,200 00	99 90	2,299 90	221
44	48	Tewksbury,	.	.	10	24.6	2,500 00	-	2,500 00	244
54	49	BillERICA,	.	.	10	18.8	3,800 00	-	3,800 00	373
38	50	Carlisle,	.	.	10	10.6	800 00	69 12	869 12	86
49	51	Ayer,	.	.	9	98.2	4,200 00	192 24	4,392 24	440
53	52	Marlborough,	.	.	9	55.2	23,078 30	-	23,078 30	2,416
51	53	Burlington,	.	.	9	40.6	1,200 00	88 56	1,288 56	137
50	54	Dracut,	.	.	8	87.8	3,000 00	125 13	3,125 13	352

NANTUCKET COUNTY.

		NANTUCKET,	.	.	\$8	75.4	\$4,902 20	-	\$4,902 20	560
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NORFOLK COUNTY.

2	1	WELLESLEY,	.	.	\$31	12.7	\$10,467 40	\$333 67	\$10,801 07	347
1	2	Brookline,	.	.	25	85.5	44,730 00	-	44,730 00	1,730
3	3	Milton,	.	.	24	86.7	15,442 62	-	15,442 62	621
4	4	Dedham,	.	.	24	65.7	28,844 23	300 00	29,144 23	1,182
23	5	Walpole,	.	.	19	83.4	8,000 00	211 32	8,211 32	414
7	6	Dover,	.	.	19	27.7	1,600 00	-	1,600 00	83
8	7	Norwood,	.	.	18	48.9	9,300 00	-	9,300 00	503
10	8	Holbrook,	.	.	17	47.1	7,000 00	390 17	7,390 17	423

BOARD OF EDUCATION.

NORFOLK COUNTY — CONCLUDED.

For 1885-86.	For 1886-87.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
5	9	Cohasset,	\$16 44.3	\$5,700 00	\$203 00	\$5,903 00	359	-
6	10	Needham,	16 29.1	8,100 00	306 17	8,406 17	516	-
9	11	Hyde Park,	15 61	26,600 00	-	26,600 00	1,704	-
11	12	Randolph,	15 43.5	10,000 00	573 05	10,573 05	685	-
15	13	Canton,	15 35.9	10,564 00	571 09	11,135 09	725	-
18	14	Weymouth,	14 70.9	26,389 08	969 27	27,358 35	1,860	-
17	15	Foxborough,	13 53.1	5,200 00	347 57	5,547 57	410	-
12	16	Wrentham,	13 51.2	6,000 00	256 14	6,256 14	463	-
16	17	Medway,	13 31.4	5,000 00	791 39	5,791 39	435	\$50 00
14	18	Millis,	13 05.4	1,396 83	-	1,396 83	107	-
19	19	Braintree,	12 68.1	8,400 00	539 80	8,939 80	705	-
20	20	Medfield,	12 22.2	2,200 00	-	2,200 00	180	-
13	21	Quincy,	11 38.7	35,163 87	-	35,163 87	3,088	-
21	22	Sharon,	11 24.7	2,400 00	153 00	2,553 00	227	-
22	23	Bellingham,	10 53.1	1,800 00	485 13	2,285 13	217	-
24	24	Stoughton,	8 81.6	8,710 59	-	8,710 59	988	-
25	25	Franklin,	7 91	6,500 00	373 77	6,873 77	869	-
26	26	Norfolk,	7 21.5	1,250 00	55 88	1,305 88	181	-

PLYMOUTH COUNTY.

1	1	MILL,	\$19 23.1	\$1,500 00	-	\$1,500 00	78	-
2	2	Hingham,	19 03.1	12,065 86	-	12,065 86	634	-
3	3	Bridgewater,	18 49.1	8,600 00	\$497 57	9,097 57	492	-

SCHOOL RETURNS.

CV

5	4	Abington,	15 65.2	9,000 00	-	9,000 00	575
4	5	Plymouth,	15 59.3	19,086 27	-	19,086 27	1,224
6	6	Kingston,	15 05.1	2,950 00	-	2,950 00	196
12	7	Middleborough,	13 58	11,000 00	-	11,000 00	810
13	8	Brockton,	13 42.8	41,164 18	717 94	41,882 12	3,119
9	9	East Bridgewater,	13 32.1	5,600 00	314 69	5,914 69	444
11	10	South Scituate,	12 37.5	2,750 00	232 28	2,982 28	241
7	11	Mattapoisett,	12 28.1	2,100 00	-	2,100 00	171
10	12	Rockland,	11 97.6	10,000 00	-	10,000 00	835
8	13	Marshfield,	11 81.3	2,500 00	217 00	2,717 00	230
15	14	Duxbury,	11 62.9	3,000 00	291 00	3,291 00	283
18	15	Marion,	11 58.5	1,900 00	-	1,900 00	164
19	16	Plympton,	11 23.8	800 00	144 00	944 00	84
14	17	Hanover,	11 05	3,450 00	196 35	3,646 35	330
23	18	Wareham,	10 74.1	6,500 00	341 98	6,841 98	637
17	19	Rochester,	10 42.1	1,600 00	140 26	1,740 26	167
25	20	Whitman,	10 09.8	6,000 00	442 42	6,442 42	638
20	21	West Bridgewater,	9 70.9	3,000 00	-	3,000 00	309
22	22	Scituate,	9 58.5	4,500 00	292 54	4,792 54	500
16	23	Lakeville,	9 09.1	1,500 00	-	1,500 00	165
26	24	Hanson,	8 58.3	1,700 00	153 82	1,853 82	216
24	25	Pembroke,	7 93	1,500 00	93 99	1,593 99	201
27	26	Carver,	7 48.1	1,200 00	109 21	1,309 21	175
21	27	Halifax,	6 54.2	700 00	-	700 00	107
\$25 00							

SUFFOLK COUNTY.

1	1	BOSTON,	\$19 89.4	\$1,350,996 24	\$43,365 25	\$1,394,361 49	70,090
4	2	Revere,	14 65.9	10,000 00	745 40	10,745 40	733
3	3	Winthrop,	12 85.2	2,500 00	173 25	2,673 25	208
2	4	Chelsea,	12 55.5	60,315 57	-	60,315 57	4,804

WORCESTER COUNTY.

For 1883-86.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
1	HOPDALE,	\$18 61.7	\$3,500 00	-	\$3,500 00	188	-
1	Harvard,	17 98.5	2,500 00	-	2,500 00	139	-
2	Barre,	16 26.3	4,800 00	\$192 89	4,992 89	307	-
4	Oxford,	16 07.7	5,000 00	-	5,000 00	311	-
5	Lancaster,	15 72.3	5,000 00	-	5,000 00	318	-
6	Shrewsbury,	15 62.5	4,000 00	-	4,000 00	256	-
28	Bolton,	15 23.8	1,500 00	100 00	1,600 00	105	-
6	Sterling,	15 06.3	3,600 00	-	3,600 00	239	-
3	New Braintree,	15 03.2	1,488 12	-	1,488 12	99	-
13	Worcester,	13 64.8	188,268 18	-	188,268 18	13,795	-
11	Leominster,	13 47.9	11,700 00	-	11,700 00	868	-
12	Fitchburg,	13 39.6	40,142 96	45 00	40,187 96	3,000	-
16	Westborough,	13 25.1	10,985 22	-	10,985 22	829	-
14	Princeton,	13 17.9	2,000 00	56 00	2,056 00	156	-
8	Northborough,	13 15.8	3,500 00	-	3,500 00	266	-
18	Petersham,	13 08	1,600 00	296 53	1,896 53	145	-
9	Upton,	12 82	4,153 59	-	4,153 59	324	\$60 00
10	Southborough,	12 74	4,300 00	133 52	4,433 52	348	-
25	Leicester,	12 18.6	6,500 00	336 35	6,836 35	561	-
24	Warren,	12 16.6	9,100 00	-	9,100 00	748	-
17	Westminster,	12 04	3,226 62	-	3,226 62	268	-
26	Ashburnham,	12 02.7	3,500 00	168 18	3,668 18	305	-
27	North Brookfield,	11 98.2	9,000 00	370 20	9,370 20	782	-
15	Lunenburg,	11 77.1	1,700 00	148 00	1,848 00	157	-
22	Milford,	11 66.7	17,764 61	318 89	18,083 50	1,550	-
30	Brookfield,	11 62.3	5,700 00	181 22	5,881 22	506	56 38

20	27	Uxbridge,	11	59.2	6,700 00	—	6,700 00	578	—
37	28	West Brookfield,	11	58.3	3,000 00	—	3,000 00	259	—
31	29	Charlton,	11	47	3,200 00	—	3,200 00	279	—
23	30	Clinton,	11	44	20,650 00	—	20,650 00	1,805	—
21	31	Northbridge,	11	20.3	8,500 00	272 16	8,772 16	783	—
33	32	Mendon,	10	92.7	1,500 00	117 13	1,617 13	148	—
32	33	Grafton,	10	84.7	9,600 00	—	9,600 00	885	—
35	34	Gardner,	10	53.5	13,000 00	—	13,000 00	1,234	—
46	35	Athol,	10	29.9	8,000 00	331 51	8,331 51	809	—
38	36	Templeton,	10	28.3	4,700 00	174 02	4,874 02	474	—
29	37	Boylston,	10	24.1	1,700 00	—	1,700 00	166	—
19	38	Paxton,	10	22.7	900 00	—	900 00	88	—
36	39	Douglas,	9	78	4,000 00	—	4,000 00	409	—
42	40	Winchendon,	9	72.5	6,291 94	—	6,291 94	647	—
56	41	Sutton,	9	50.7	4,500 00	234 44	4,734 44	498	—
34	42	Millbury,	9	44.5	8,000 00	—	8,000 00	847	—
39	43	Hubbardston,	9	30.2	2,000 00	—	2,000 00	215	—
55	44	Rutland,	9	27.6	1,800 00	36 57	1,836 57	198	—
43	45	Phillipston,	9	19.5	800 00	—	800 00	87	—
50	46	Royalston,	9	17.5	1,500 00	114 85	1,614 85	176	—
40	47	Spencer,	9	16.8	16,750 00	—	16,750 00	1,827	—
44	48	Hardwick,	8	91	4,300 00	226 20	4,526 20	508	—
41	49	Holden,	8	90.8	4,914 63	287 59	5,202 22	584	—
53	50	Oakham,	8	86.5	850 00	107 46	957 46	108	—
45	51	Sturbridge,	8	64.9	3,200 00	—	3,200 00	370	—
48	52	Dana,	8	52.5	700 00	75 76	775 76	91	—
47	53	West Boylston,	8	11.3	4,600 00	—	4,600 00	567	—
52	54	Southbridge,	7	89.3	11,200 00	—	11,200 00	1,419	—
54	55	Berlin,	7	39.5	1,100 00	112 83	1,212 83	164	—
49	56	Blackstone,	6	78.3	7,500 00	327 21	7,827 21	1,154	—
51	57	Dudley,	6	15.7	3,500 00	182 14	3,682 14	598	—
58	58	Auburn,	5	48.5	1,300 00	—	1,300 00	237	—
57	59	Webster,	4	85.9	5,850 00	335 20	6,185 20	1,273	—

GRADUATED TABLES — FIRST SERIES.

Showing the Comparative Amount of Money appropriated by the different Counties in the State for the Education of each Child between the Ages of 5 and 15 Years in the County.

For 1885-86.	For 1886-87.	COUNTIES.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
1	1	Suffolk,	\$19 35.9	\$1,423,811 81	\$44,283 90	\$1,468,095 71	75,835	—
2	2	Norfolk,	15 96.1	296,758 62	6,860 42	303,619 04	19,022	\$50 00
3	3	Middlesex,	15 47.3	1,002,010 00	5,370 88	1,007,380 88	65,104	391 00
9	4	Worcester,	13 80.8	630,635 87	5,281 85	635,917 72	46,055	116 38
4	5	Barnstable,	13 09.8	63,520 00	1,840 84	65,360 84	4,990	—
7	6	Plymouth,	13 04	165,666 31	4,185 05	169,851 36	13,025	25 00
5	7	Bristol,	12 78.8	359,899 99	5,755 52	365,655 51	28,594	56 25
6	8	Essex,	12 33	566,457 49	6,915 46	573,372 95	46,501	110 00
10	9	Hampden,	11 46.4	250,686 18	3,056 89	253,743 07	22,134	1,173 00
8	10	Dukes,	10 37	5,938 00	128 16	6,066 16	585	15 00
11	11	Hampshire,	9 85.3	84,599 51	2,331 61	86,931 12	8,823	7 00
12	12	Berkshire,	9 74.3	142,305 82	1,621 03	143,926 85	14,772	50 00
13	13	Franklin,	9 02	62,747 63	864 76	63,612 39	7,052	497 00
14	14	Nantucket,	8 75.4	4,902 20	—	4,902 20	560	—
AGGREGATE FOR THE STATE.								
THE STATE,			\$14 58.3	\$5,059,939 43	\$88,496 37	\$5,148,435 80	353,052	\$2,490 63

GRADUATED TABLES — FIRST SERIES.

Showing the Comparative Amount of Money, including Voluntary Contributions, appropriated by the different Counties in the State, for the Education of each Child between the Ages of 5 and 15 Years in the County.

For 1885-86.	For 1886-87.	COUNTIES.	TOTALS.
1	1	Suffolk,	\$19 35.9
2	2	Norfolk,	15 96.4
3	3	Middlesex,	15 47.9
9	4	Worcester,	13 81
4	5	Barnstable,	13 09.8
7	6	Plymouth,	13 04.2
5	7	Bristol,	12 79
6	8	Essex,	12 33.3
10	9	Hampden,	11 51.7
8	10	Dukes,	10 39.5
11	11	Hampshire,	9 85.4
14	12	Berkshire,	9 74.7
13	13	Franklin,	9 09
14	14	Nantucket,	8 75.4
STATE,			\$14 59

GRADUATED TABLES — SECOND SERIES.

The next Table exhibits the appropriation of the cities and towns, as compared with their respective valuation in 1886.

The first column shows the rank of the cities and towns in a similar Table for 1885-86, according to their valuation in 1885.

The second column indicates, in numerical order, the precedence of the cities and towns in respect to the liberality of their appropriations for 1886-87, according to their valuation in 1886.

The third consists of the names of the cities and towns, as numerically arranged.

The fourth shows the percentage of taxable property appropriated to the support of the public schools. The result is equivalent in value to mills and hundredths of mills. The decimals are carried to three figures, in order to indicate more perfectly the distinction between the different towns. The first figure (mills) expresses the principal value, and is separated from the last two figures by a dash.

The appropriations for schools are not given in the following Table, as they may be found by referring to the previous Tables; also in the Abstract of School Returns, commencing on page ii. These appropriations include the sum raised by taxes, the income of the surplus revenue, and of such other funds as the towns may appropriate at their option, either to support common schools, or to pay ordinary municipal expenses. The income of other local funds, and the voluntary contributions, are not included in the estimate. The appropriations are reckoned the same as in the first series of Tables, and for the same reasons.

The amount of taxable property, in each city and town, according to the last State valuation, is also omitted, as it is already given in the foregoing Abstract of School Returns.

If the rank assigned to towns in the next Tables is compared with the rank of the same town in the former series, it will be seen that they hold, in many instances, a very different place in the scale.

GRADUATED TABLES — SECOND SERIES.

[FOR THE STATE.]

A Graduated Table in which all the Towns in the State are numerically arranged according to the Percentage of their Taxable Property appropriated to the Support of Public Schools for the Year 1885-86.

For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	TOWNS.	Percentage of Val- uation appropriated to Public Schools— equivalent to mills and hundredths of mills.	For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	TOWNS.	Percentage of Val- uation appropriated to Public Schools— equivalent to mills and hundredths of mills.
3	1	HOLBROOK, .	\$.007-02	29	34	Rehoboth, .	\$.004-75
1	2	Granville, .	6-67	28	35	Hyde Park, .	4-73
4	3	W. Stockb'ge, .	6-63	41	36	Adams, .	4-71
5	4	Truro, .	6-59	73	37	Fairhaven, .	4-71
2	5	Sandwich, .	6-50	38	38	Abington, .	4-68
6	6	Hawley, .	5-83	30	39	Wareham, .	4-67
18	7	Florida, .	5-51	113	40	Brookfield, .	4-66
37	8	Dedham, .	5-50	11	41	Mansfield, .	4-66
15	9	N. Adams, .	5-50	36	42	Wrentham, .	4-66
269	10	Bernardston, .	5-44	40	43	Palmer, .	4-63
22	11	Georgetown, .	5-39	12	44	Merrimac, .	4-60
27	12	Marlborough, .	5-39	8	45	South Hadley, .	4-56
35	13	Wellfleet, .	5-37	34	46	Ludlow, .	4-54
7	14	Chatham, .	5-34	52	47	Templeton, .	4-53
46	15	N. Brookfield, .	5-33	43	48	Pelham, .	4-50
25	16	Randolph, .	5-28	64	49	Hinsdale, .	4-47
10	17	Harwich, .	5-13	87	50	Leyden, .	4-41
9	18	Sandisfield, .	5-13	59	51	Natick, .	4-41
97	19	Heath, .	5-11	92	52	Norwood, .	4-40
-	20	Hopedale, .	5-07	74	53	Colerain, .	4-38
13	21	Orleans, .	5-03	65	54	N. Andover, .	4-37
32	22	Holden, .	5-02	80	55	Buckland, .	4-36
24	23	Monson, .	4-91	55	56	Dighton, .	4-35
23	24	Brewster, .	4-87	51	57	Stoneham, .	4-35
47	25	Belchertown, .	4-86	45	58	Bradford, .	4-34
256	26	Walpole, .	4-83	82	59	Westborough, .	4-34
72	27	Attleborough, .	4-81	63	60	Groveland, .	4-33
50	28	Dennis, .	4-80	53	61	Deerfield, .	4-32
54	29	Somerset, .	4-77	79	62	Spencer, .	4-32
48	30	Weymouth, .	4-77	126	63	Shutesbury, .	4-31
39	31	Medway, .	4-76	49	64	Westminster, .	4-31
16	32	Upton, .	4-76	31	65	Otis, .	4-30
14	33	Bourne, .	4-75	58	66	Granby, .	4-28

For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	TOWNS.	Percentage of Valuation appropriated to Public Schools— equivalent to mills and hundredths of mills.	For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	TOWNS.	Percentage of Valuation appropriated to Public Schools— equivalent to mills and hundredths of mills.
70	67	Bridgewater,	\$0.004-26	201	117	Wilbraham,	\$0.003-76
143	68	Grafton,	4-25	112	118	Ashburnham,	3-75
68	69	Needham,	4-25	210	119	Washington,	3-75
66	70	Northbridge,	4-25	103	120	Erving,	3-74
60	71	Wakefield,	4-22	135	121	Danvers,	3-73
44	72	Rockland,	4-20	26	122	Monroe,	3-71
100	73	Sterling,	4-15	128	123	Savoy,	3-71
57	74	Waltham,	4-15	121	124	Shelburne,	3-71
102	75	Gloucester,	4-13	133	125	Williamsburg,	3-71
19	76	Hudson,	4-13	130	126	Sutton,	3-70
88	77	Saugus,	4-13	160	127	Rochester,	3-69
99	78	Westford,	4-12	84	128	Chicopee,	3-68
71	79	Millbury,	4-10	137	129	Woburn,	3-68
76	80	Barnstable,	4-09	153	130	Ayer,	3-67
146	81	Winchester,	4-09	108	131	Essex,	3-67
132	82	Middleboro',	4-08	145	132	Longmeadow,	3-67
77	83	W. Boylston,	4-07	96	133	Concord,	3-66
136	84	Warren,	4-04	142	134	Hopkinton,	3-65
118	85	Provincetown,	4-02	67	135	Ashland,	3-64
20	86	Peru,	3-99	185	136	Middlefield,	3-63
81	87	Quincy,	3-99	155	137	Norton,	3-53
69	88	Sheffield,	3-99	125	138	Peabody,	3-53
119	89	Clinton,	3-97	178	139	Southbridge,	3-63
127	90	Montgomery,	3-95	161	140	Townsend,	3-61
150	91	Foxborough,	3-94	134	141	Tyngsboro',	3-61
33	92	Dudley,	3-93	95	142	Westhampton,	3-61
138	93	Bellingham,	3-92	75	143	Amesbury,	3-59
90	94	Eastham,	3-92	85	144	Windsor,	3-59
101	95	Monterey,	3-91	159	145	Barre,	3-58
93	96	N. Reading,	3-91	154	146	Cheshire,	3-58
104	97	Oxford,	3-90	131	147	Hardwick,	3-58
169	98	New Salem,	3-88	105	148	Wendell,	3-57
56	99	Plymouth,	3-88	246	149	Lexington,	3-56
110	100	Abington,	3-86	148	150	Montague,	3-56
89	101	E. Bridgew'r,	3-86	171	151	Salisbury,	3-56
139	102	Leicester,	3-86	94	152	Clarksburg,	3-55
147	103	Milford,	3-84	184	153	Melrose,	3-55
141	104	Gardner,	3-83	151	154	Hingham,	3-54
91	105	Shrewsbury,	3-83	123	155	Northfield,	3-53
116	106	Raynham,	3-82	149	156	Swansea,	3-53
107	107	Douglas,	3-81	167	157	Marblehead,	3-51
106	108	Stoughton,	3-81	157	158	Pittsfield,	3-51
166	109	Holliston,	3-80	213	159	Holyoke,	3-49
83	110	Ashby,	3-79	179	160	Medford,	3-47
78	111	Haverhill,	3-79	177	161	Reading,	3-47
122	112	Wayland,	3-78	229	162	Hampden,	3-46
111	113	Orange,	3-77	183	163	Lynn,	3-46
86	114	W. Brookfield,	3-77	174	164	Somerville,	3-46
203	115	W. Newbury,	3-77	187	165	Worcester,	3-45
271	116	Rutland,	3-76	301	166	Huntington,	3-43

SCHOOL RETURNS.

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BRISTOL COUNTY.

	TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1	ATTLEBOROUGH.	2,191	1,895	.86-49	11	N. Bedford,	5,131	3,676	.71-64
2	Fairhaven,	417	358	.85-85	12	Dartmouth,	506	362	.71-54
3	Dighton,	274	233	.85-04	13	Acushnet,	184	130	.70-65
4	Mansfield,	485	392	.80-82	14	Rehoboth,	276	192	.69-57
5	Swansea,	212	168	.79-25	15	Westport,	496	341	.68-75
6	Taunton.	3,933	3,094	.78-67	16	Freetown,	234	158	.67-52
7	Easton,	772	597	.77-33	17	Seekonk,	228	153	.67-11
8	Berkley,	144	111	.77-08	18	Fall River,	12,091	7,029	.58-13
9	Raynham,	241	177	.73-44	19	Norton,	322	184	.57-14
10	Somerset,	457	334	.73-09					

DUKES COUNTY.

1	TISBURY, .	168	147	.87-50	4	Chilmark,	60	46	.76-67
2	Edgartown,	164	131	.79-87	5	Gay Head,	34	20	.58-82
3	Cottage City,	144	111	.77-08	6	Gosnold,	15	8	.53-33

ESSEX COUNTY.

1	SWAMPSCOTT, .	347	360	1.03-75	19	Methuen,	795	621	.78-11
2	Amesbury,	731	693	.94-80	20	Hamilton,	105	82	.78-10
3	Rockport,	715	653	.91-33	21	Peabody,	1,976	1,538	.77-83
4	Bradford,	554	502	.90-61	22	Marblehead,	1,439	1,086	.75-47
5	Danvers,	1,090	981	.90-00	23	Lynnfield,	115	86	.74-78
6	Manchester,	239	215	.89-96	24	Lynn,	7,527	5,614	.74-58
7	Boxford,	112	100	.89-29	25	Georgetown,	476	353	.74-16
8	Ipswich,	564	495	.87-77	26	Groveland,	404	296	.73-27
9	Gloucester,	3,765	3,270	.86-85	27	Rowley,	220	154	.70-00
10	Nahant,	140	121	.86-43	28	Salisbury,	786	550	.69-97
11	Merrimac,	447	386	.86-35	29	Topsfield,	175	116	.66-29
12	Saugus,	516	440	.85-27	30	Middleton,	124	78	.62-90
13	Andover,	904	744	.82-30	31	Lawrence,	7,277	4,576	.62-88
14	Haverhill,	3,917	3,150	.80-42	32	Essex,	286	179	.62-59
15	W. Newbury,	295	237	.80-34	33	Salem,	5,140	3,108	.60-47
16	Beverly,	1,656	1,325	.80-01	34	Newbury,	318	153	.48-11
17	N. Andover,	681	538	.79-00	35	Newburyp't,	2,515	1,084	.43-10
18	Wenham,	150	118	.78-67					

BOARD OF EDUCATION.

FRANKLIN COUNTY.

TOWNS.			TOWNS.		
		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.	
1	MONROE . . .	33	38	1.15-15	14 Deerfield, . . . 589 480 .81-49
2	Charlмонт, . .	157	149	.94-90	15 New Salem. . . 126 102 .80-95
3	Heath, . . .	117	111	.94-87	16 Leverett, . . . 127 102 .80-32
4	Orange, . . .	636	583	.91-67	17 Buckland, . . . 294 224 .76-19
5	Warwick, . . .	110	100	.90-91	18 Conway, . . . 291 221 .75-95
6	Rowe, . . .	102	91	.89-23	19 Colrain, . . . 330 250 .75-76
7	Wendell, . . .	69	61	.88-41	20 Bernardston, . . 150 110 .73-33
8	Hawley, . . .	103	90	.87-38	21 Northfield, . . . 265 191 .72-08
9	Sunderland, . .	139	119	.85-61	22 Shelburne, . . . 275 198 .72-00
10	Greenfield, . .	910	779	.85-60	23 Leyden, . . . 110 78 .70-91
11	Gill, . . .	121	103	.85-12	24 Erving, . . . 169 117 .69-23
12	Shutesbury, . .	102	84	.82-35	25 Montague, . . . 1,350 933 .69-11
13	Ashfield, . . .	176	144	.81-82	26 Whately, . . . 201 109 .54-23

HAMPDEN COUNTY.

1	TOLLAND, . . .	63	60	.95-24	12 Agawam, . . . 446 328 .73-54
2	Wilbraham, . .	240	221	.92-08	13 Palmer, . . . 1,164 839 .72-08
3	Granville, . . .	185	166	.89-73	14 Ludlow, . . . 380 261 .68-68
4	Southwick, . .	181	161	.88-95	15 Wales, . . . 148 100 .67-57
5	Blandford, . .	205	182	.88-78	16 Springfield, . . . 6,472 4,341 .67-07
6	W. Springfield, .	898	755	.84-08	17 Holland, . . . 40 26 .65-00
7	Montgomery, . .	49	40	.81-63	18 Chester, . . . 215 136 .63-26
8	Longmeadow, . .	263	206	.78-33	19 Hampden, . . . 178 110 .61-80
9	Monson, . . .	634	486	.76-66	20 Russell, . . . 143 88 .61-54
10	Westfield, . . .	1,628	1,241	.76-23	21 Chicopee, . . . 2,305 1,144 .49-63
11	Brimfield, . . .	175	131	.74-86	22 Holyoke, . . . 6,122 2,688 .43-91

HAMPSHIRE COUNTY.

1	CUMMINGTON, . .	135	150	1.11-11	13 Goshen, . . . 59 46 .77-97
2	Granby, . . .	133	126	.94-74	14 Northampton, . . 2,370 1,834 .77-38
3	Middlefield, . .	94	89	.94-68	15 Pelham, . . . 97 75 .77-32
4	Amherst, . . .	601	541	.90-02	16 Worthington, . . . 126 96 .76-19
5	Greenwich, . . .	72	62	.86-11	17 Southampt'n, . . . 179 130 .72-63
6	Hadley, . . .	335	283	.84-48	18 Belchertown, . . . 465 337 .72-47
7	Chesterfield, . .	128	108	.84-38	19 Williamsb'rg, . . . 428 304 .71-03
8	So. Hadley, . . .	688	580	.84-30	20 Hatfield, . . . 256 170 .66-41
9	Enfield, . . .	152	125	.82-24	21 Ware, . . . 1,243 791 .63-64
10	Huntington, . .	219	175	.79-91	22 Westhampt'n, . . . 103 60 .58-25
11	Easthampt'n, . .	782	622	.79-54	23 Plainfield, . . . 67 31 .46-27
12	Prescott, . . .	91	71	.78-02	

SCHOOL RETURNS.

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MIDDLESEX COUNTY.

TOWNS.				TOWNS.					
	No of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		
1	ASHBY,	144	155	1.07-64	28	Bedford,	129	106	.82-17
2	Tyngsboro',	86	86	1.00-00	29	Littleton,	185	152	.82-16
3	Natick,	1,526	1,480	.96-99	30	Shirley,	221	181	.81-90
4	Waltham,	2,488	2,354	.94-61	31	Ashland,	438	357	.81-52
5	Acton,	259	242	.93-44	32	Chelmsford,	458	371	.81-00
6	Watertown,	1,091	1,017	.93-22	33	Groton,	284	230	.80-99
7	Framingham,	1,442	1,335	.92-58	34	Westford,	380	304	.80-00
8	Hudson,	805	723	.89-81	35	Weston,	248	198	.79-84
9	Medford,	1,558	1,394	.89-47	36	Wakefield,	1,208	956	.79-13
10	Boxborough,	56	50	.89-29	37	Wayland,	413	318	.77-00
11	Winchester,	820	731	.89-15	38	Stow,	185	142	.76-76
12	Somerville,	5,296	4,678	.88-33	39	Cambridge,	11,131	8,530	.76-63
13	Concord,	601	529	.88-02	40	Lexington,	460	343	.74-57
14	Stoneham,	936	820	.87-61	41	Carlisle,	86	64	.74-42
15	Dunstable,	70	61	.87-14	42	Maynard,	526	387	.73-57
16	Pepperell,	429	373	.86-95	43	Wilmington,	157	114	.72-61
17	Ayer,	440	382	.86-82	44	Malden,	2,629	1,907	.72-54
18	Reading,	592	513	.86-66	45	Marlboro',	2,416	1,715	.70-99
19	Everett,	1,145	985	.86-03	46	Billerica,	373	261	.69-97
20	Newton,	3,785	3,239	.85-57	47	Lincoln,	174	119	.68-39
21	Arlington,	955	817	.85-55	48	N. Reading,	145	99	.68-28
22	Holliston,	490	419	.85-51	49	Sherborn,	190	129	.67-89
23	Hopkinton,	782	667	.85-29	50	Burlington,	137	92	.67-15
24	Townsend,	291	248	.85-22	51	Tewksbury,	244	159	.65-16
25	Belmont,	321	271	.84-42	52	Woburn,	2,637	1,687	.63-97
26	Melrose,	1,356	1,131	.83-41	53	Dracut,	352	219	.62-22
27	Sudbury,	179	149	.83-24	54	Lowell,	11,355	6,180	.54-43

NANTUCKET COUNTY.

1	NANTUCKET,	560	330	.58-93
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NORFOLK COUNTY.

1	MEDWAY,	435	431	.99-08	7	Norwood,	503	445	.88-47
2	Wellesley,	347	335	.96-54	8	Foxboro',	410	357	.87-07
3	Medfield,	180	170	.94-44	9	Dedham,	1,182	1,027	.86-89
4	Weymouth,	1,860	1,735	.93-28	10	Randolph,	685	591	.86-28
5	Holbrook,	423	393	.92-91	11	Needham,	516	436	.84-50
6	Cohasset,	359	332	.92-48	12	Hyde Park,	1,704	1,409	.82-69

NORFOLK COUNTY — CONCLUDED.

TOWNS.				TOWNS.			
	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
13 Milton, .	621	504	.81-16	20 Wrentham, .	463	350	.75-53
14 Walpole, .	414	336	.81-16	21 Brookline, .	1,730	1,286	.74-34
15 Dover, .	83	67	.80-72	22 Quincy, .	3,088	2,265	.73-35
16 Braintree, .	705	565	.80-14	23 Sharon, .	227	166	.73-13
17 Millis, .	107	83	.77-57	24 Franklin, .	869	583	.67-09
18 Norfolk, .	181	139	.76-80	25 Stoughton, .	988	598	.60-53
19 Bellingham, .	217	166	.76-50	26 Canton, .	725	393	.54-21

PLYMOUTH COUNTY.

1 KINGSTON, .	196	213	1.08-67	15 Harwich, .	330	265	.80-30
2 Abington, .	575	584	1.01-57	16 Marion, .	164	129	.78-66
3 Rockland, .	835	812	.97-25	17 Rochester, .	167	130	.77-84
4 Hingham, .	634	606	.95-58	18 Marshfield, .	230	179	.77-83
5 Bridgewater, .	492	457	.92-89	19 Pembroke, .	201	151	.75-12
6 Mattapoisett, .	171	154	.90-06	20 Carver, .	175	131	.74-86
7 Whitman, .	638	573	.89-81	21 Wareham, .	637	474	.74-41
8 Brockton, .	3,119	2,767	.88-71	22 Scituate, .	500	372	.74-40
9 E. Bridgew'r, .	444	392	.88-29	23 Lakeville, .	165	121	.73-33
10 Plympton, .	84	72	.85-71	24 Hanson, .	216	154	.71-30
11 Plymouth, .	1,224	1,048	.85-62	25 Halifax, .	107	72	.67-29
12 Middleboro', .	810	690	.85-19	26 W. Bridgew'r, .	309	207	.66-99
13 Duxbury, .	283	237	.83-75	27 Hull, .	78	51	.65-38
14 So. Scituate, .	241	200	.82-99				

SUFFOLK COUNTY.

1 WINTHROP, .	208	208	1.00-00	3 Boston, .	70090	52166	.74-43
2 Chelsea, .	4,804	3,778	.78-64	4 Revere, .	733	526	.71-76

WORCESTER COUNTY.

1 DANA, .	91	99	1.08-79	7 Mendon, .	148	142	.95-95
2 Bolton, .	105	107	1.01-90	8 Ashburnham, .	305	290	.95-08
3 Northboro', .	266	271	1.01-88	9 Royalston, .	176	165	.93-75
4 Leominster, .	868	881	1.01-50	10 Oakham, .	108	100	.92-59
5 Oxford, .	311	314	1.00-96	11 Rutland, .	198	181	.91-41
6 Shrewsbury, .	256	247	.96-48	12 Hopedale, .	188	171	.90-96

SCHOOL RETURNS.

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WORCESTERCOUNTY — CONCLUDED.

TOWNS.				TOWNS.					
	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		
13	Phillipston, .	87	79	.90-80	37	Paxton, .	88	68	.77-27
14	Princeton, .	156	139	.89-10	38	Charlton, .	279	215	.77-06
15	Leicester, .	561	493	.87-88	39	Fitchburg, .	3,000	2,306	.76-87
16	Brookfield, .	506	440	.86-96	40	Grafton, .	885	679	.76-72
17	Harvard, .	139	120	.86-33	41	Millbury, .	847	645	.76-15
18	Upton, .	324	279	.86-11	42	Milford, .	1,550	1,160	.74-84
19	Westminster, .	268	229	.85-45	43	Hardwick, .	508	378	.74-41
20	Barre, .	307	261	.85-02	44	Sturbridge, .	370	274	.74-05
21	Athol, .	809	682	.84-30	45	Berlin, .	164	121	.73-78
22	Templeton, .	474	399	.84-18	46	Boylston, .	166	122	.73-49
23	Sterling, .	239	201	.84-10	47	Southboro', .	348	244	.70-11
24	Hubbardston, .	215	180	.83-72	48	Worcester, .	13795	94820	.68-74
25	Westboro', .	829	691	.83-35	49	Northbridge, .	783	534	.68-20
26	Petersham, .	145	120	.82-76	50	Uxbridge, .	578	390	.67-47
27	Lunenburg, .	157	128	.81-53	51	Blackstone, .	1,154	766	.66-38
28	W. Brookfi'd, .	259	210	.81-08	52	Douglas, .	409	264	.64-55
29	Winchendon, .	647	524	.80-99	53	Auburn, .	237	150	.63-29
30	Warren, .	748	605	.80-88	54	Holden, .	584	344	.58-90
31	N. Braintree, .	99	80	.80-81	55	Sutton, .	498	283	.56-83
32	N. Brookfield, .	782	623	.79-67	56	Southbridge, .	1,419	619	.43-62
33	Gardner, .	1,234	969	.78-53	57	Dudley, .	598	260	.43-48
34	Clinton, .	1,805	1,408	.78-01	58	W. Boylston, .	567	181	.31-92
35	Spencer, .	1,827	1,422	.77-83	59	Webster, .	1,273	356	.27-97
36	Lancaster, .	318	247	.77-67					

TABLE in which all the Counties are numerically arranged, according to the AVERAGE ATTENDANCE of their Children upon the Public Schools for the Year 1886-87.

1885-86.	1886-87	COUNTIES.	Ratio of Attendance.
4	1	PLYMOUTH. . . . .	.86-30
2	2	Barnstable, . . . . .	.85-93
3	3	Norfolk. . . . .	.79-71
1	4	Dukes. . . . .	.79-15
5	5	Franklin, . . . . .	.78-94
6	6	Hampshire, . . . . .	.77-42
9	7	Middlesex, . . . . .	.77-06
8	8	Suffolk. . . . .	.74-74
7	9	Berkshire, . . . . .	.73-25
11	10	Essex. . . . .	.73-12
10	11	Worcester,72-39
12	12	Bristol,68-49
13	13	Hampden,61-94
14	14	Nantucket,58-93
STATE,74-26

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SCHOOL RETURNS.

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For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	TOWNS.	Percentage of Val- uation appropriated to Public Schools— equivalent to mills and hundredths of mills.	For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	TOWNS.	Percentage of Val- uation appropriated to Public Schools— equivalent to mills and hundredths of mills.
114	167	Lakeville, .	\$.003-43	42	217	Blandford, .	\$.003-16
173	168	Uxbridge, .	3-43	204	218	Malden, .	3-16
168	169	Franklin, .	3-42	196	219	Chesterfield, .	3-14
243	170	Bedford, .	3-40	239	220	Taunton, .	3-13
231	171	Shirley, .	3-40	152	221	Newton, .	3-12
220	172	Charlton, .	3-39	197	222	Northampton, .	3-12
175	173	Chelmsford, .	3-39	228	223	Chester, .	3-11
182	174	Fitchburg, .	3-36	172	224	G. Barrington, .	3-11
194	175	Rockport, .	3-36	208	225	Norfolk, .	3-11
224	176	Tolland, .	3-36	162	226	Charlemont, .	3-10
207	177	Ipswich, .	3-35	223	227	Fall River, .	3-09
189	178	Westfield, .	3-35	202	228	Northborough, .	3-09
190	179	Acton, .	3-34	233	229	Braintree, .	3-08
165	180	Conway, .	3-34	219	230	Leominster, .	3-08
170	181	Rowe, .	3-34	242	231	Pepperell, .	3-08
62	182	Littleton, .	3-33	241	232	Leverett, .	3-07
115	183	N. Braintree, .	3-33	260	233	Maynard, .	3-07
191	184	N. Marlboro', .	3-33	199	234	Tyringham, .	3-04
238	185	Warwick, .	3-33	230	235	Phillipston, .	3-03
274	186	Bolton, .	3-32	221	236	Cambridge, .	3-02
186	187	Tisbury, .	3-32	245	237	Whately, .	3-02
181	188	Rowley, .	3-31	232	238	Wilmington, .	2-99
216	189	Hanover, .	3-30	251	239	Brockton, .	2-98
176	190	Hanson, .	3-29	252	240	Lowell, .	2-98
222	191	Petersham, .	3-29	247	241	Wenham, .	2-96
158	192	South Scituate, .	3-29	263	242	Duxbury, .	2-95
195	193	Sturbridge, .	3-29	61	243	Lee, .	2-95
156	194	Blackstone, .	3-26	329	244	Revere, .	2-95
198	195	Plympton, .	3-26	287	245	Hadley, .	2-94
140	196	Canton, .	3-25	226	246	Enfield, .	2-93
254	197	Lanesborough, .	3-25	249	247	Prescott, .	2-93
163	198	Berkley, .	3-24	193	248	Brimfield, .	2-91
129	199	Watertown, .	3-23	244	249	Lenox, .	2-91
124	200	Ashfield, .	3-22	250	250	Acushnet, .	2-90
266	201	Athol, .	3-22	257	251	Mendon, .	2-90
120	202	Millis, .	3-22	98	252	Paxton, .	2-90
214	203	Westport, .	3-22	144	253	Greenfield, .	2-88
215	204	Chelsea, .	3-21	258	254	Halifax, .	2-86
227	205	W. Springfield, .	3-21	259	255	Southwick, .	2-85
234	206	Williamstown, .	3-21	188	256	Amherst, .	2-84
218	207	Worthington, .	3-21	253	257	Everett, .	2-84
225	208	Becket, .	3-19	275	258	Lawrence, .	2-84
212	209	Easthampton, .	3-19	261	259	Salem, .	2-84
206	210	Framingham, .	3-19	264	260	Hubbardston, .	2-83
209	211	Southampton, .	3-18	262	261	Agawam, .	2-82
205	212	Southborough, .	3-18	288	262	Wales, .	2-82
211	213	Boylston, .	3-17	235	263	Dana, .	2-79
180	214	Methuen, .	3-17	278	264	Lunenburg, .	2-76
200	215	W. Bridgewater, .	3-17	272	265	Oakham, .	2-76
217	216	Winchendon, .	3-17	164	266	Ware, .	2-76

For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	TOWNS.	Percentage of Valuation appropriated to Public Schools— equivalent to mills and hundredths of mills.	For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	TOWNS.	Percentage of Valuation appropriated to Public Schools— equivalent to mills and hundredths of mills.
255	267	Dartmouth, . .	\$0.002-75	295	309	Boxford, . .	\$0.002-25
240	268	Webster, . .	2-75	300	310	Carver, . .	2-25
268	269	Weston, . .	2-74	307	311	Carlisle, . .	2-24
286	270	New Bedford, .	2-73	304	312	Stow, . .	2-24
267	271	Harvard, . .	2-72	326	313	Holland, . .	2-16
281	272	Andover, . .	2-70	323	314	Dover, . .	2-14
117	273	Boxborough, .	2-70	321	315	Lancaster, .	2-14
302	274	Burlington, .	2-70	314	316	Chilmark, .	2-12
289	275	Cummington, .	2-70	317	317	Newbury, .	2-11
270	276	Easton, . .	2-70	248	318	Richmond, .	2-11
296	277	Gill, . .	2-70	319	319	Sudbury, . .	2-03
265	278	Dalton, . .	2-69	330	320	Groton, . .	1-97
277	279	Auburn, . .	2-67	320	321	Boston, . .	1-96
279	280	Newburyport, .	2-67	334	322	Hamilton, .	1-92
276	281	Springfield, .	2-67	303	323	Hatfield, . .	1-91
192	282	Scituate, . .	2-65	297	324	Lincoln, . .	1-91
273	283	Sherborn, . .	2-65	308	325	Medfield, .	1-89
236	284	Greenwich, . .	2-61	315	326	Cohasset, . .	1-84
282	285	Marshfield, .	2-60	322	327	Tewksbury, .	1-84
109	286	Plainfield, . .	2-59	318	328	Stockbridge, .	1-78
283	287	Dracut, . .	2-58	325	329	Falmouth, .	1-76
285	288	Dunstable, . .	2-58	324	330	Kingston, .	1-76
284	289	Sunderland, .	2-57	332	331	Nantucket, .	1-76
313	290	Belmont, . .	2-56	327	332	Swampscott, .	1-71
237	291	Pembroke, . .	2-55	336	333	Lynnfield, .	1-64
280	292	Freetown, . .	2-53	337	334	Alford, . .	1-58
331	293	Marion, . .	2-51	333	335	Beverly, . .	1-45
298	294	Seekonk, . .	2-51	335	336	Mattapoisett, .	1-44
291	295	Berlin, . .	2-50	339	337	Mt. Wash'ton,	1-39
293	296	Royalston, . .	2-48	21	338	Mashpee, . .	1-38
292	297	Edgartown, . .	2-45	338	339	Brookline, .	1-34
294	298	Princeton, . .	2-44	344	340	New Ashford, .	1-30
340	299	Hancock, . .	2-43	341	341	Milton, . .	1-27
305	300	Yarmouth, . .	2-41	342	342	Gosnold, . .	1-17
328	301	Billerica, . .	2-36	311	343	Topsfield, .	1-12
310	302	Russell, . .	2-34	343	344	Winthrop, . .	1-09
316	303	Whitman, . .	2-34	345	345	Cottage City, .	0-87
309	304	Egremont, . .	2-31	346	346	Nahant, . .	0-79
306	305	Goshen, . .	2-31	347	347	Hull, . .	0-70
312	306	Wellesley, . .	2-31	348	348	Manchester, .	0-62
290	307	Middleton, . .	2-27	17	349	Gay Head, . .	-
299	308	Sharon, . .	2-27				

GRADUATED TABLES—SECOND SERIES.

[COUNTY TABLES.]

In which all the Towns in the respective Counties in the State are numerically arranged according to the Percentage of their Taxable Property appropriated for the Support of Public Schools for the Year 1886-87.

BARNSTABLE COUNTY.

For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	TOWNS.	Percentage of Val- uation appropriated to Public Schools— equivalent to mills and hundredths of mills.	For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	TOWNS.	Percentage of Val- uation appropriated to Public Schools— equivalent to mills and hundredths of mills.
2	1	TRURO, .	\$.006-59	6	9	Bourne, .	\$.004-75
1	2	Sandwich, .	6-50	11	10	Barnstable, .	4-09
9	3	Wellfleet, .	5-37	13	11	Provincetown,	4-02
3	4	Chatham, .	5-34	12	12	Eastham, .	3-92
4	5	Harwich, .	5-13	14	13	Yarmouth, .	2-41
5	6	Orleans, .	5-03	15	14	Falmouth, .	1-76
8	7	Brewster, .	4-87	7	15	Mashpee, .	1-38
10	8	Dennis, .	4-80				

BERKSHIRE COUNTY.

1	1	WEST STOCKBRIDGE, .	\$.006-63	18	17	N. Marlboro', .	\$.003-33
4	2	Florida, .	5-51	25	18	Lanesborough,	3-25
3	3	North Adams,	5-50	22	19	Williamstown,	3-21
2	4	Sandisfield, .	5-13	21	20	Becket, .	3-19
7	5	Adams, .	4-71	17	21	Gt. Barrington,	3-11
9	6	Hinsdale, .	4-47	19	22	Tyringham, .	3-04
6	7	Otis, .	4-30	8	23	Lee, .	2-95
5	8	Peru, .	3-99	23	24	Lenox, .	2-91
10	9	Sheffield, .	3-99	26	25	Dalton, .	2-69
13	10	Monterey, .	3-91	31	26	Hancock, .	2-43
20	11	Washington, .	3-75	27	27	Egremont, .	2-31
14	12	Savoy, .	3-71	24	28	Richmond, .	2-11
11	13	Windsor, .	3-59	28	29	Stockbridge, .	1-78
15	14	Cheshire, .	3-58	29	30	Alford, .	1-58
12	15	Clarksburg, .	3-55	30	31	Mt. Wash'ton,	1-39
16	16	Pittsfield, .	3-51	32	32	New Ashford,	1-30

BOARD OF EDUCATION.

BRISTOL COUNTY.

For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	TOWNS.	Percentage of Valuation appropriated to Public Schools— equivalent to mills and hundredths of mills.	For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	TOWNS.	Percentage of Valuation appropriated to Public Schools— equivalent to mills and hundredths of mills.
5	1	ATTLEBOROUGH, .	\$.004-81	11	11	Westport, .	\$.003-22
3	2	Somerset, .	4-77	13	12	Taunton, .	3-13
2	3	Rehoboth, .	4-75	12	13	Fall River, .	3-09
6	4	Fairhaven, .	4-71	14	14	Acushnet, .	2-90
1	5	Mansfield, .	4-66	15	15	Dartmouth, .	2-75
4	6	Dighton, .	4-35	18	16	New Bedford, .	2-73
7	7	Raynham, .	3-82	16	17	Easton, .	2-70
9	8	Norton, .	3-63	17	18	Freetown, .	2-53
8	9	Swansea, .	3-53	19	19	Seekonk, .	2-51
10	10	Berkley, .	3-24				

DUKES COUNTY.

2	1	TISBURY, .	\$.003-32	5	4	Gosnold, .	\$.001-17
3	2	Edgartown, .	2-45	6	5	Cottage City, .	0-87
4	3	Chilmark, .	2-12	1	6	Gay Head, .	-

ESSEX COUNTY.

2	1	GEORGETOWN, .	\$.005-39	16	19	Rowley, .	\$.003-31
1	2	Merrimac, .	4-60	15	20	Methuen, .	3-17
5	3	No. Andover, .	4-37	21	21	Wenham, .	2-96
3	4	Bradford, .	4-34	23	22	Lawrence, .	2-84
4	5	Groveland, .	4-33	22	23	Salem, .	2-84
9	6	Gloucester, .	4-13	25	24	Andover, .	2-70
8	7	Saugus, .	4-13	24	25	Newburyport, .	2-67
7	8	Haverhill, .	3-79	26	26	Middleton, .	2-27
19	9	W. Newbury, .	3-77	27	27	Boxford, .	2-25
12	10	Danvers, .	3-73	29	28	Newbury, .	2-11
10	11	Essex, .	3-67	32	29	Hamilton, .	1-92
11	12	Peabody, .	3-63	30	30	Swampscott, .	1-71
6	13	Amesbury, .	3-59	33	31	Lynnfield, .	1-64
14	14	Salisbury, .	3-56	31	32	Beverly, .	1-45
13	15	Marblehead, .	3-51	28	33	Topsfield, .	1-12
17	16	Lynn, .	3-46	34	34	Nahant, .	0-79
18	17	Rockport, .	3-36	35	35	Manchester, .	0-62
20	18	Ipswich, .	3-35				

SCHOOL RETURNS.

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FRANKLIN COUNTY.

For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	TOWNS.	Percentage of Valuation appropriated to Public Schools— equivalent to mills and hundredths of mills.	For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	TOWNS.	Percentage of Valuation appropriated to Public Schools— equivalent to mills and hundredths of mills.
1	1	HAWLEY, .	\$.005-83	9	14	Wendell, .	\$.003-57
24	2	Bernardston, .	5-44	16	15	Montague, .	3-56
7	3	Heath, .	5-11	12	16	Northfield, .	3-53
6	4	Leyden, .	4-41	18	17	Conway, .	3-34
4	5	Colrain, .	4-38	20	18	Rowe, .	3-34
5	6	Buckland, .	4-36	21	19	Warwick, .	3-33
3	7	Deerfield, .	4-32	13	20	Ashfield, .	3-22
14	8	Shutesbury, .	4-31	17	21	Charlemont, .	3-10
19	9	New Salem, .	3-88	22	22	Leverett, .	3-07
10	10	Orange, .	3-77	23	23	Whately, .	3-02
8	11	Erving, .	3-74	15	24	Greenfield, .	2-88
2	12	Monroe, .	3-71	26	25	Gill, .	2-70
11	13	Shelburne, .	3-71	25	26	Sunderland, .	2-57

HAMPDEN COUNTY.

1	1	GRANVILLE, .	\$.006-67	9	12	Westfield, .	\$.003-35
2	2	Monson, .	4-91	14	13	W.Springfield, .	3-21
4	3	Palmer, .	4-63	5	14	Blandford, .	3-16
3	4	Ludlow, .	4-54	15	15	Chester, .	3-11
7	5	Montgomery, .	3-95	10	16	Brimfield, .	2-91
17	6	Wilbraham, .	3-76	17	17	Southwick, .	2-85
6	7	Chicopee, .	3-68	18	18	Agawam, .	2-82
8	8	Longmeadow, .	3-67	20	19	Wales, .	2-82
12	9	Holyoke, .	3-49	19	20	Springfield, .	2-67
16	10	Hampden, .	3-46	21	21	Russell, .	2-34
13	11	Tolland, .	3-36	22	22	Holland, .	2-16

HAMPSHIRE COUNTY.

3	1	BELCHERTOWN, .	\$.004-86	12	13	Northampton, .	\$.003-12
1	2	South Hadley, .	4-56	19	14	Hadley, .	2-94
2	3	Pelham, .	4-50	16	15	Enfield, .	2-93
4	4	Granby, .	4-28	18	16	Prescott, .	2-93
7	5	Williamsburg, .	3-71	10	17	Amherst, .	2-84
9	6	Middlefield, .	3-63	8	18	Ware, .	2-76
5	7	Westhampton, .	3-61	20	19	Cummington, .	2-70
21	8	Huntington, .	3-43	17	20	Greenwich, .	2-61
15	9	Worthington, .	3-21	6	21	Plainfield, .	2-59
14	10	Easthampton, .	3-19	23	22	Goshen, .	2-31
13	11	Southampton, .	3-18	22	23	Hatfield, .	1-91
11	12	Chesterfield, .	3-14				

MIDDLESEX COUNTY.

For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	TOWNS.	Percentage of Val- uation appropriated to Public Schools— equivalent to mills and hundredths of mills.	For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	TOWNS.	Percentage of Val- uation appropriated to Public Schools— equivalent to mills and hundredths of mills.
2	1	MARLBOROUGH, .	\$.005-39	26	28	Chelmsford, .	\$.003-39
5	2	Natick, .	4-41	30	29	Acton, .	3-34
3	3	Stoneham, .	4-35	7	30	Littleton, .	3-33
6	4	Wakefield, .	4-22	16	31	Watertown, .	3-23
4	5	Waltham, .	4-15	32	32	Framingham, .	3-19
1	6	Hudson, .	4-13	31	33	Malden, .	3-16
12	7	Westford, .	4-12	21	34	Newton, .	3-12
20	8	Winchester, .	4-09	36	35	Pepperell, .	3-08
10	9	No. Reading, .	3-91	41	36	Maynard, .	3-07
13	10	Arlington, .	3-86	33	37	Cambridge, .	3-02
24	11	Holliston, .	3-80	35	38	Wilmington, .	2-99
9	12	Ashby, .	3-79	39	39	Lowell, .	2-98
15	13	Wayland, .	3-78	40	40	Everett, .	2-84
18	14	Woburn, .	3-68	42	41	Weston, .	2-74
22	15	Ayer, .	3-67	14	42	Boxborough, .	2-70
11	16	Concord, .	3-66	47	43	Burlington, .	2-70
19	17	Hopkinton, .	3-65	43	44	Sherborn, .	2-65
8	18	Ashland, .	3-64	44	45	Dracut, .	2-58
23	19	Townsend, .	3-61	45	46	Dunstable, .	2-58
17	20	Tyngsboro', .	3-61	50	47	Belmont, .	2-56
38	21	Lexington, .	3-56	53	48	Billerica, .	2-36
29	22	Melrose, .	3-55	49	49	Carlisle, .	2-24
28	23	Medford, .	3-47	48	50	Stow, .	2-24
27	24	Reading, .	3-47	51	51	Sudbury, .	2-03
25	25	Somerville, .	3-46	54	52	Groton, .	1-97
37	26	Bedford, .	3-40	46	53	Lincoln, .	1-91
34	27	Shirley, .	3-40	52	54	Tewksbury, .	1-84

NANTUCKET COUNTY.

	NANTUCKET,	\$.001-76
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NORFOLK COUNTY.

1	1	HOLBROOK, .	\$.007-02	8	10	Needham, .	\$.004-25
5	2	Dedham, .	5-50	9	11	Quincy, .	3-99
2	3	Randolph, .	5-28	15	12	Foxborough, .	3-94
19	4	Walpole, .	4-83	13	13	Bellingham, .	3-92
7	5	Weymouth, .	4-77	11	14	Stoughton, .	3-81
6	6	Medway, .	4-76	16	15	Franklin, .	3-42
3	7	Hyde Park, .	4-73	14	16	Canton, .	3-25
4	8	Wrentham, .	4-66	12	17	Millis, .	3-22
10	9	Norwood, .	4-40	17	18	Norfolk, .	3-11

SCHOOL RETURNS.

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NORFOLK COUNTY — CONCLUDED.

For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	TOWNS.	Percentage of Valuation appropriated to Public Schools— equivalent to mills and hundredths of mills.	For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	TOWNS.	Percentage of Valuation appropriated to Public Schools— equivalent to mills and hundredths of mills.
18	19	Braintree, .	\$.003-08	21	23	Medfield, .	\$.001-89
22	20	Wellesley, .	2-31	23	24	Cohasset, .	1-84
20	21	Sharon, .	2-27	25	25	Brookline, .	1-34
24	22	Dover, .	2-14	26	26	Milton, .	1-27

PLYMOUTH COUNTY.

2	1	ABINGTON, .	\$.004-68	15	15	W.Bridgew'r,	\$.003-17
1	2	Wareham, .	4-67	18	16	Brockton, .	2-98
5	3	Bridgewater, .	4-26	20	17	Duxbury, .	2-95
3	4	Rockland, .	4-20	19	18	Halifax, .	2-86
8	5	Middleboro', .	4-08	13	19	Scituate, .	2-65
4	6	Plymouth, .	3-88	21	20	Marshfield, .	2-60
6	7	E.Bridgewa'r.	3-86	17	21	Pembroke, .	2-55
11	8	Rochester, .	3-69	25	22	Marion, .	2-51
9	9	Hingham, .	3-54	23	23	Whitman, .	2-34
7	10	Lakeville, .	3-43	22	24	Carver, .	2-25
16	11	Hanover, .	3-30	24	25	Kingston, .	1-76
12	12	Hanson, .	3-29	26	26	Mattapoisett, .	1-44
10	13	So. Scituate, .	3-29	27	27	Hull, .	0-70
14	14	Plympton, .	3-26				

SUFFOLK COUNTY.

1	1	CHELSEA, .	\$.003-21	2	3	Boston, .	\$.001-96
3	2	Revere, .	2-95	4	4	Winthrop, .	1-09

WORCESTER COUNTY.

4	1	NORTH BROOKFIELD, .	\$.005-33	7	11	Northbridge, .	\$.004-25
—	2	Hopedale, .	5-07	15	12	Sterling, .	4-15
2	3	Holden, .	5-02	8	13	Millbury, .	4-10
1	4	Upton, .	4-76	9	14	W. Boylston, .	4-07
19	5	Brookfield, .	4-66	24	15	Warren, .	4-04
6	6	Templeton, .	4-53	21	16	Clinton, .	3-97
11	7	Westborough, .	4-34	3	17	Dudley, .	3-93
10	8	Spencer, .	4-32	16	18	Oxford, .	3-90
5	9	Westminster, .	4-31	25	19	Leicester, .	3-86
27	10	Grafton, .	4-25	28	20	Milford, .	3-84

WORCESTER COUNTY — CONCLUDED.

For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	TOWNS.	Percentage of Valuation appropriated to Public Schools— equivalent to mills and hundredths of mills.	For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	TOWNS.	Percentage of Valuation appropriated to Public Schools— equivalent to mills and hundredths of mills.
26	21	Gardner, . .	\$.003-83	32	41	Southbridge, .	\$.003-18
13	22	Shrewsbury, .	3-83	38	42	Boylston, . .	3-17
17	23	Douglas, . .	3-81	39	43	Winchendon, .	3-17
12	24	W. Brookfield, .	3-77	36	44	Northborough, .	3-09
50	25	Rutland, . .	3-76	40	45	Leominster, . .	3-08
18	26	Ashburnham, .	3-75	43	46	Phillipston, . .	3-03
22	27	Sutton, . . .	3-70	46	47	Mendon, . . .	2-90
32	28	Southbridge, .	3-63	14	48	Paxton, . . .	2-90
30	29	Barre, . . .	3-58	47	49	Hubbardston, .	2-83
23	30	Hardwick, . .	3-58	44	50	Dana,	2-79
34	31	Worcester, . .	3-45	54	51	Lunenburg, . .	2-76
31	32	Uxbridge, . .	3-43	51	52	Oakham, . . .	2-76
41	33	Charlton, . .	3-39	45	53	Webster, . . .	2-75
33	34	Fitchburg, . .	3-36	49	54	Harvard, . . .	2-72
20	35	N. Braintree, .	3-33	53	55	Auburn, . . .	2-67
52	36	Bolton, . . .	3-32	55	56	Berlin,	2-50
42	37	Petersham, . .	3-29	56	57	Royalston, . .	2-48
35	38	Sturbridge, . .	3-29	57	58	Princeton, . .	2-44
29	39	Blackstone, . .	3-26	58	59	Lancaster, . .	2-14
48	40	Athol,	3-22				

GRADUATED TABLES — SECOND SERIES.

Showing the different Counties in the State, numerically arranged, according to the Percentage of their Taxable Property appropriated for the Support of Public Schools for the Year 1886-87.

For 1885-86, by the State Valuation of 1885.	COUNTIES.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	Amount of money raised by taxes for the support of Public Schools.	Income of surplus Revenue and other funds, including the dog tax, used at the option of the town.	TOTALS.	Valuation of 1886.	Amount contributed for board and fuel.
4	WORCESTER.	\$.004-24	\$630,635 87	\$5,281 85	\$635,917 72	\$149,845,719	\$116 38
1	Barnstable, .	3-89	63,520 00	1,840 84	65,360 84	16,803,862	—
2	Berkshire, .	3-66	142,305 82	1,621 03	143,926 85	39,326,919	50 00
3	Franklin, .	3-53	62,747 63	864 76	63,612 39	18,006,628	497 00
6	Middlesex, .	3-28	1,002,010 00	5,370 88	1,007,380 88	307,284,559	391 00
5	Hampshire, .	3-18	84,599 51	2,331 61	86,931 12	27,364,603	7 00
7	Plymouth, .	3-18	165,666 31	4,185 05	169,851 36	53,428,697	25 00
8	Hampden, .	3-16	250,686 18	3,056 89	253,743 07	80,183,152	1,173 00
9	Bristol, .	3-15	359,899 99	5,755 52	365,655 51	116,132,019	56 25
10	Essex, .	3-01	566,457 49	6,915 46	573,372 95	190,681,470	110 00
11	Norfolk, .	2-84	296,758 62	6,860 42	303,619 04	106,866,614	50 00
12	Suffolk, .	2-00	1,423,811 81	44,283 90	1,468,095 71	735,524,572	—
13	Dukes, .	1-84	5,938 00	128 16	6,066 16	3,290,867	15 00
14	Nantucket, .	1-76	4,902 20	—	4,902 20	2,791,741	—
AGGREGATE FOR THE STATE.							
STATE, .	. . . . .	\$ .002 79	\$5,059,939 43	\$88,496 37	\$5,148,435 80	\$1,847,531,422	\$2,490 63

GRADUATED TABLES—SECOND SERIES.

Showing the Arrangement of Counties according to their Appropriations, including Voluntary Contributions.

For 1885-86, by the State Valuation of 1885.	For 1886-87, by the State Valuation of 1886.	COUNTIES.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
4	1	WORCESTER,	\$.004-24
1	2	Barnstable,	3-89
2	3	Berkshire,	3-66
3	4	Franklin,	3-56
6	5	Middlesex,	3-28
5	6	Hampshire,	3-18
8	7	Hampden,	3-18
7	8	Plymouth,	3-18
9	9	Bristol,	3-15
10	10	Essex,	3-01
11	11	Norfolk,	2-84
12	12	Suffolk,	2-00
13	13	Dukes,	1-85
14	14	Nantucket,	1-76
STATE,			\$.002-79

GRADUATED TABLES — THIRD SERIES.

The following Table exhibits the ratio of the average attendance for the year in each town to the whole number of children between 5 and 15, according to the returns.

The ratio is expressed in decimals, continued to four figures, the first two of which are separated from the last two by a point, as only the two former are essential to denote the real per cent. Yet the ratios of many towns are so nearly equal, or the difference is so small a fraction, that the first two decimals with the appropriate mathematical sign appended indicate no distinction. The continuation of the decimals, therefore, is simply to indicate a priority in cases where, without such continuation, the ratios would appear to be precisely similar.

In several cases the ratio of attendance exhibited in the Table is over 100 per cent. These results, supposing the registers to have been properly kept and the returns correctly made, are to be thus explained: The average attendance upon all Public Schools being compared with the whole number of children in the town between 5 and 15, the result may be over 100 per cent., because the attendance of children under 5 and over 15 may more than compensate for the absence of children between those ages. The rank of the towns standing highest in the following Table is in accordance with the returns. As the returns are often incorrect, the rank may be too high in some cases.

GRADUATED TABLES — THIRD SERIES.

[FOR THE STATE.]

In which all the Towns in the State are numerically arranged according to the AVERAGE ATTENDANCE of the Children upon the Public Schools for the Year 1886-87.

TOWNS.				TOWNS.					
	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		
1	SAVOY, . . .	127	177	1.39-37	33	Medfield, . .	180	170	.94-44
2	Monroe, . . .	33	38	1.15-15	34	Royalston, . .	176	165	.93-75
3	Cummingt'n.	135	150	1.11-11	35	Acton, . . .	259	242	.93-44
4	Dana, . . .	91	99	1.08-79	36	Weymouth, . .	1,860	1,735	.93-28
5	Kingston, . .	196	213	1.08-67	37	Watertown, . .	1,091	1,017	.93-22
6	Ashby, . . .	144	155	1.07-64	38	Holbrook, . .	423	393	.92-91
7	Harwich, . . .	436	454	1.04-13	39	Bridgewater, .	492	457	.92-89
8	Swampscott, .	347	360	1.03-75	40	Wellfleet, . .	248	230	.92-74
9	Bolton, . . .	105	107	1.01-90	41	Oakham, . . .	108	100	.92-59
10	Northboro', .	266	271	1.01-88	42	Framingham, .	1,442	1,335	.92-58
11	Abington, . .	575	584	1.01-57	43	Cohasset, . . .	359	332	.92-48
12	Leominster, .	868	881	1.01-50	44	Wilbraham, . .	240	221	.92-08
13	Oxford, . . .	311	314	1.00-96	45	Brewster, . . .	169	155	.91-72
14	Tyngsboro', .	86	86	1.00-00	46	Orange, . . .	636	583	.91-67
15	Winthrop, . .	208	208	1.00-00	47	Rutland, . . .	198	181	.91-41
16	Medway, . . .	435	431	.99-08	48	Rockport, . .	715	653	.91-33
17	Otis,	114	111	.97-37	49	Hopedale, . .	188	171	.90-96
18	Rockland, . .	835	812	.97-25	50	Warwick, . . .	110	100	.90-91
19	Natick, . . .	1,526	1,480	.96-99	51	Provincetown, .	812	738	.90-89
20	Wellesley, . .	347	335	.96-54	52	Phillipston, . .	87	79	.90-80
21	Shrewsbury, .	256	247	.96-48	53	Bradford, . . .	554	502	.90-61
22	Monterey, . .	101	97	.96-04	54	Mattapoisett, .	171	154	.90-06
23	Mendon, . . .	148	142	.95-95	55	Amherst, . . .	601	541	.90-02
24	Hingham, . .	634	606	.95-58	56	Danvers, . . .	1,090	981	.90-00
25	Tolland, . . .	63	60	.95-24	57	Manchester, . .	239	215	.89-96
26	Ashburnham, .	305	290	.95-08	58	Hudson, . . .	805	723	.89-81
27	Charlemont, .	157	149	.94-90	59	Whitman, . . .	638	573	.89-81
28	Heath, . . .	117	111	.94-87	60	Granville, . .	185	166	.89-73
29	Amesbury, . .	731	693	.94-80	61	Medford, . . .	1,558	1,394	.89-47
30	Granby, . . .	133	126	.94-74	62	Boxborough, . .	56	50	.89-29
31	Middlefield, .	94	89	.94-68	63	Boxford, . . .	112	100	.89-29
32	Waltham, . .	2,488	2,354	.94-61	64	Rowe,	102	91	.89-23

SCHOOL RETURNS.

CXXV

TOWNS.				TOWNS.					
	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		
65	Winchester, .	820	731	.89-15	113	Gill, .	121	103	.85-12
66	Princeton, .	156	139	.89-10	114	Dighton, .	274	233	.85-04
67	Southwick, .	181	161	.88-95	115	Barre, .	307	261	.85-02
68	Barnstable, .	657	584	.88-89	116	Needham, .	516	436	.84-50
69	Blandford, .	205	182	.88-78	117	Hadley, .	335	283	.84-48
70	Brockton, .	3,119	2,767	.88-71	118	Belmont, .	321	271	.84-42
71	Norwood, .	503	445	.88-47	119	Chesterfield, .	128	108	.84-38
72	Wendell, .	69	61	.88-41	120	Athol, .	809	682	.84-30
73	Somerville, .	5,296	4,678	.88-33	121	So. Hadley, .	688	580	.84-30
74	E. Bridgew'r, .	444	392	.88-29	122	Templeton, .	474	399	.84-18
75	Concord, .	601	529	.88-02	123	Sterling, .	239	201	.84-10
76	Leicester, .	561	493	.87-88	124	W. Springfi'd, .	898	755	.84-08
77	Truro, .	165	145	.87-88	125	Duxbury, .	283	237	.83-75
78	Ipswich, .	564	495	.87-77	126	Hubbardston, .	215	180	.83-72
79	Stoneham, .	936	820	.87-61	127	Melrose, .	1,356	1,131	.83-41
80	Tisbury, .	168	147	.87-50	128	Westborough, .	829	691	.83-35
81	Hawley, .	103	90	.87-38	129	Sudbury, .	179	149	.83-24
82	Sandwich, .	386	337	.87-31	130	So. Scituate, .	241	200	.82-99
83	Dunstable, .	70	61	.87-14	131	Petersham, .	145	120	.82-76
84	Foxborough, .	410	357	.87-07	132	Hyde Park, .	1,704	1,409	.82-69
85	Brookfield, .	506	440	.86-96	133	Shutesbury, .	102	84	.82-35
86	Pepperell, .	429	373	.86-95	134	Andover, .	904	744	.82-30
87	Dedham, .	1,182	1,027	.86-89	135	Enfield, .	152	125	.82-24
88	Gloucester, .	3,765	3,270	.86-85	136	Bedford, .	129	106	.82-17
89	Ayer, .	440	382	.86-82	137	Littleton, .	185	152	.82-16
90	Reading, .	592	513	.86-66	138	Shirley, .	221	181	.81-90
91	Dennis, .	489	423	.86-50	139	Ashfield, .	176	144	.81-82
92	Attleborough, .	2,191	1,895	.86-49	140	Montgomery, .	49	40	.81-63
93	Nahant, .	140	121	.86-43	141	Lunenburg, .	157	128	.81-53
94	Merrimac, .	447	386	.86-35	142	Ashland, .	438	357	.81-52
95	Harvard, .	139	120	.86-33	143	Deerfield, .	589	480	.81-49
96	Randolph, .	685	591	.86-28	144	Milton, .	621	504	.81-16
97	Greenwich, .	72	62	.86-11	145	Walpole, .	414	336	.81-16
98	Upton, .	324	279	.86-11	146	W. Brookfi'd, .	259	210	.81-08
99	Everett, .	1,145	985	.86-03	147	Chelmsford, .	458	371	.81-00
100	Fairhaven, .	417	358	.85-85	148	Groton, .	284	230	.80-99
101	Plympton, .	84	72	.85-71	149	Winchendon, .	647	524	.80-99
102	Plymouth, .	1,224	1,048	.85-62	150	New Salem, .	126	102	.80-95
103	Sunderland, .	139	119	.85-61	151	Warren, .	748	605	.80-88
104	Greenfield, .	910	779	.85-60	152	Mansfield, .	485	392	.80-82
105	Newton, .	3,785	3,239	.85-57	153	N. Braintree, .	99	80	.80-81
106	Arlington, .	955	817	.85-55	154	Mt. Wash'gt'n, .	26	21	.80-77
107	Holliston, .	490	419	.85-51	155	Dover, .	83	67	.80-72
108	Westminster, .	268	229	.85-45	156	Haverhill, .	3,917	3,150	.80-42
109	Hopkinton, .	782	667	.85-29	157	W. Newbury, .	295	237	.80-34
110	Saugus, .	516	440	.85-27	158	Leverett, .	127	102	.80-32
111	Townsend, .	291	248	.85-22	159	Hanover, .	330	265	.80-30
112	Middleboro', .	810	690	.85-19	160	Braintree, .	705	565	.80-14

TOWNS.				TOWNS.					
		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.	
161	Beverly, .	1,656	1,325	.80-01	209	Monson, .	634	486	.76-66
162	Westford, .	380	304	.80-00	210	Cambridge, .	11131	8,530	.76-63
163	Huntington, .	219	175	.79-91	211	Lee, .	722	553	.76-59
164	Edgartown, .	164	131	.79-87	212	Bellingham, .	217	166	.76-50
165	Weston, .	248	198	.79-84	213	Westfield, .	1,628	1,241	.76-23
166	N. Brookfield, .	782	623	.79-67	214	Buckland, .	294	224	.76-19
167	Windsor, .	123	98	.79-67	215	Worthingt'n, .	126	96	.76-19
168	Becket, .	167	133	.79-64	216	Millbury, .	847	645	.76-15
169	Easthampton, .	782	622	.79-54	217	Conway, .	291	221	.75-95
170	Swansea, .	212	168	.79-25	218	Colrain, .	330	250	.75-76
171	Mashpee, .	48	38	.79-17	219	Pittsfield, .	2,854	2,162	.75-75
172	Wakefield, .	1,208	956	.79-13	220	Wrentham, .	463	350	.75-53
173	N. Andover, .	681	538	.79-00	221	Marblehead, .	1,439	1,086	.75-47
174	W. St'kb'dge, .	372	293	.78-76	222	Williamsto'n, .	543	409	.75-32
175	Taunton, .	3,933	3,094	.78-67	223	Pembroke, .	201	151	.75-12
176	Wenham, .	150	118	.78-67	224	Adams, .	1,800	1,352	.75-11
177	Marion, .	164	129	.78-66	225	Chatham, .	352	264	.75-00
178	Chelsea, .	4,804	3,778	.78-64	226	Lenox, .	450	337	.74-89
179	Gardner, .	1,234	969	.78-53	227	Brimfield, .	175	131	.74-86
180	Longmeadow, .	263	206	.78-33	228	Carver, .	175	131	.74-86
181	Methuen, .	795	621	.78-11	229	Milford, .	1,550	1,160	.74-84
182	Hamilton, .	105	82	.78-10	230	Lynnfield, .	115	86	.74-78
183	Prescott, .	91	71	.78-02	231	Bourne, .	252	188	.74-60
184	Clinton, .	1,805	1,408	.78-01	232	Lynn, .	7,527	5,614	.74-58
185	Goshen, .	59	46	.77-97	233	Lexington, .	460	343	.74-57
186	Rochester, .	167	130	.77-84	234	Boston, .	70090	52166	.74-43
187	Falmouth, .	406	316	.77-83	235	Carlisle, .	86	64	.74-42
188	Marshfield, .	230	179	.77-83	236	Hardwick, .	508	378	.74-41
189	Peabody, .	1,976	1,538	.77-83	237	Wareham, .	637	474	.74-41
190	Spencer, .	1,827	1,422	.77-83	238	Egremont, .	125	93	.74-40
191	Cheshire, .	297	231	.77-78	239	Scituate, .	500	372	.74-40
192	Lancaster, .	318	247	.77-67	240	Orleans, .	156	116	.74-36
193	Millis, .	107	83	.77-57	241	Brookline, .	1,730	1,286	.74-34
194	Northampt'n, .	2,370	1,834	.77-38	242	Georgetown, .	476	353	.74-16
195	Easton, .	772	597	.77-33	243	Sturbridge, .	370	274	.74-05
196	Pelham, .	97	75	.77-32	244	Berlin, .	164	121	.73-78
197	Paxton, .	88	68	.77-27	245	Maynard, .	526	387	.73-57
198	Berkley, .	144	111	.77-08	246	Agawam, .	446	328	.73-54
199	Cottage City, .	144	111	.77-08	247	Boylston, .	166	122	.73-49
200	Charlton, .	279	215	.77-06	248	Raynham, .	241	177	.73-44
201	Gt. Barr'gton, .	840	647	.77-02	249	Quincy, .	3,088	2,265	.73-35
202	Wayland, .	413	318	.77-00	250	Bernardston, .	150	110	.73-33
203	Florida, .	130	100	.76-92	251	Lakeville, .	165	121	.73-33
204	Fitchburg, .	3,000	2,306	.76-87	252	Groveland, .	404	296	.73-27
205	Norfolk, .	181	139	.76-80	253	Sharon, .	227	166	.73-13
206	Stow, .	185	142	.76-76	254	Somerset, .	457	334	.73-09
207	Grafton, .	885	679	.76-72	255	Yarmouth, .	319	232	.72-73
208	Chilmark, .	60	46	.76-67	256	Southampt'n, .	179	130	.72-63

SCHOOL RETURNS.

cxxxvii

TOWNS.				TOWNS.					
	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		
257	Wilmington,	157	114	.72-61	304	W. Bridgew'r,	309	207	.66-99
258	Malden,	2,629	1,907	.72-54	305	Hatfield,	256	170	.66-41
259	Belchertown,	465	337	.72-47	306	Blackstone,	1,154	766	.66-38
260	Northfield,	265	191	.72-08	307	Topsfield,	175	116	.66-29
261	Palmer,	1,164	839	.72-08	308	Sandisfield,	224	147	.65-63
262	Shelburne,	275	198	.72-00	309	N. Adams,	2,769	1,815	.65-55
263	Lanesboro',	255	183	.71-76	310	Hull,	78	51	.65-38
264	Revere,	733	526	.71-76	311	Tewksbury,	244	159	.65-16
265	N. Bedford,	5,131	3,676	.71-64	312	Holland,	40	26	.65-00
266	Eastham,	95	68	.71-58	313	Douglas,	409	264	.64-55
267	Dartmouth,	506	362	.71-54	314	Woburn,	2,637	1,687	.63-97
268	New Ashford,	28	20	.71-43	315	Ware,	1,243	791	.63-64
269	N. Marlboro',	311	222	.71-38	316	Alford,	60	38	.63-33
270	Hanson,	216	154	.71-30	317	Auburn,	237	150	.63-29
271	Williamsb'g,	428	304	.71-03	318	Chester,	215	136	.63-26
272	Marlborough,	2,416	1,715	.70-99	319	Middleton,	124	78	.62-90
273	Leyden,	110	78	.70-91	320	Lawrence,	7,277	4,576	.62-88
274	Acushnet,	184	130	.70-65	321	Essex,	286	179	.62-59
275	Hinsdale,	419	295	.70-41	322	Dracut,	352	219	.62-22
276	Dalton,	449	316	.70-38	323	Hampden,	178	110	.61-80
277	Sheffield,	385	270	.70-13	324	Russell,	143	88	.61-54
278	Southboro',	348	244	.70-11	325	Hancock,	113	69	.61-06
279	Tyringham,	95	67	.70-05	326	Stoughton,	988	598	.60-53
280	Rowley,	220	154	.70-00	327	Salem,	5,140	3,108	.60-47
281	Billerica,	373	261	.69-97	328	Clarksburg,	133	80	.60-15
282	Salisbury,	786	550	.69-97	329	Nantucket,	560	330	.58-93
283	Rehoboth,	276	192	.69-57	330	Holden,	584	344	.58-90
284	Erving,	169	117	.69-23	331	Gay Head,	34	20	.58-82
285	Montague,	1,350	933	.69-11	332	Westhampt'n,	103	60	.58-25
286	Stockbridge,	390	269	.68-97	333	Fall River,	12091	7,029	.58-13
287	Washington,	90	62	.68-89	334	Norton,	322	184	.57-14
288	Westport,	496	341	.68-75	335	Sutton,	498	283	.56-83
289	Worcester,	13795	9,482	.68-74	336	Richmond,	206	117	.56-80
290	Ludlow,	380	261	.68-68	337	Lowell,	11355	6,180	.54-43
291	Peru,	54	37	.68-52	338	Whately,	201	109	.54-23
292	Lincoln,	174	119	.68-39	339	Canton,	725	393	.54-21
293	N. Reading,	145	99	.68-28	340	Gosnold,	15	8	.53-33
294	Northbridge,	783	534	.68-20	341	Chicopee,	2,305	1,144	.49-63
295	Sherborn,	190	129	.67-89	342	Newbury,	318	153	.48-11
296	Wales,	148	100	.67-57	343	Plainfield,	67	31	.46-27
297	Freetown,	234	158	.67-52	344	Holyoke,	6,122	2,688	.43-91
298	Uxbridge,	578	390	.67-47	345	Southbridge,	1,419	619	.43-62
299	Halifax,	107	72	.67-29	346	Dudley,	598	260	.43-48
300	Burlington,	137	92	.67-15	347	Newburyp'rt,	2,515	1,084	.43-10
301	Seekonk,	228	153	.67-11	348	W. Boylston,	567	181	.31-92
302	Franklin,	869	583	.67-09	349	Webster,	1,273	356	.27-97
303	Springfield,	6,472	4,341	.67-07					

GRADUATED TABLES—THIRD SERIES.

[COUNTY TABLES.]

In which all the Towns in the Respective Counties in the State are numerically arranged according to the AVERAGE ATTENDANCE of their Children upon the Public Schools for the Year 1886-87.

[For an explanation of the principles on which the Tables are constructed, see *ante*, p. cxxiii.]

BARNSTABLE COUNTY.

	TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1	MARWICH, .	436	454	1.04-13	9	Mashpee, .	48	38	.79-17
2	Wellfleet, .	248	230	.92-74	10	Falmouth, .	406	316	.77-83
3	Brewster, .	169	155	.91-72	11	Chatham, .	352	264	.75-00
4	Provinceto'n, .	812	738	.90-89	12	Bourne, .	252	188	.74-60
5	Barnstable, .	657	584	.88-89	13	Orleans, .	156	116	.74-36
6	Truro, .	165	145	.87-88	14	Yarmouth, .	319	232	.72-73
7	Sandwich, .	386	337	.87-31	15	Eastham, .	95	68	.71-58
8	Dennis, .	489	423	.86-50					

BERKSHIRE COUNTY.

1	SAVOY, .	127	177	1.39-37	17	Lanesboro', .	255	183	.71-76
2	Otis, .	114	111	.97-37	18	N. Ashford, .	28	20	.71-43
3	Monterey, .	101	97	.96-04	19	N. Marlboro', .	311	222	.71-38
4	Mt. Wash'g'n, .	26	21	.80-77	20	Hinsdale, .	419	295	.70-41
5	Windsor, .	123	98	.79-67	21	Dalton, .	449	316	.70-38
6	Becket, .	167	133	.79-64	22	Sheffield, .	385	270	.70-13
7	W. Stockb'ge, .	372	293	.78-76	23	Tyringham, .	95	67	.70-05
8	Cheshire, .	297	231	.77-78	24	Stockbridge, .	390	269	.68-97
9	G. Barringt'n, .	840	647	.77-02	25	Washington, .	90	62	.68-89
10	Florida, .	130	100	.76-92	26	Peru, .	54	37	.68-52
11	Lee, .	722	553	.76-59	27	Sandisfield, .	224	147	.65-63
12	Pittsfield, .	2,854	2,162	.75-75	28	N. Adams, .	2,769	1,815	.65-55
13	Williamst'n, .	543	409	.75-32	29	Alford, .	60	38	.63-33
14	Adams, .	1,800	1,352	.75-11	30	Hancock, .	113	69	.61-06
15	Lenox, .	450	337	.74-89	31	Clarksburg, .	133	80	.60-15
16	Egremont, .	125	93	.74-40	32	Richmond, .	206	117	.56-80

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